A study of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students

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COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: Signed by candidate Date: 12/09/2016

DEDICATION

This dissertation is dedicated to my husband, Lucian Johnson. Thank you for having enough faith for the both of us.

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To my supervisor, Associate Professor Jaya Raju: I wish to thank you for your tireless efforts and for believing in me even when I did not believe in myself. Thank you for your dedication, expert guidance, support, patience and for sharing your incredible insights during this process. Words cannot describe how honoured I am to be your student.

To the Library and Information Studies Centre (LISC) at the University of Cape Town: Thank you for being my extended family and for always enquiring about my progress.

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To my husband, Lucian: Thank you for journeying with me on what was sometimes a rocky road. You have taught me how to soldier on, even in the midst of adversity. Thank you for

reading every single word of this dissertation, for the early morning hand-ins and the late night spell checks. Your faith carried me through to the end.

ABSTRACT

This study sought to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition. This objective was supported by five critical questions which attempted to elicit data from the literature reviewed, humanities librarians interviewed and postgraduate student respondents. A constructivist qualitative approach with a multiple case study design was employed by the study. Core Competency Theory was used to provide theoretical support. Empirical data was collected by conducting interviews and focus group discussions with purposively sampled humanities librarians and postgraduate students at three selected higher education institutions in the Western Cape, namely, Stellenbosch University, University of Cape Town and the University of the Western Cape. Collected data were analysed using *NVivo 11 Pro* (for coding purposes) and thematic content analysis by the researcher.

An important conclusion of the study, *inter alia*, based on its findings and discussion in the context of the literature reviewed and theory supporting the study, is that a combination of discipline-specific knowledge and skills, generic skills and personal attributes are required by humanities librarians in order to effectively support postgraduate students especially in the current digital age. The study also concludes that while subject knowledge is required, expert knowledge of humanities subjects is not generally necessary in order to provide support to postgraduate students. Rather, a broad working knowledge of a subject is required. However there are exceptions in the case of highly specialised subjects such as Music. The study recommends that both continuing professional development for humanities librarians supporting postgraduate students, amongst other librarians, as well as LIS schools in their curriculum design and development for LIS professionals entering the academic library environment, take into account a combination of discipline-specific knowledge and skills, generic skills and personal attributes for effective delivery of academic library services. To this end the study presents a knowledge and skills framework which humanities librarians supporting postgraduate students may use to 'measure' their current knowledge and skills as well as to ascertain areas for new knowledge and skills acquisition.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACRL	Association of College & Research Libraries
ASSAf	Academy of Science of South Africa
AU	Australia
CPUT	Cape Peninsula University of Technology
CU	Comprehensive university
DCC	Digital Curation Centre, United Kingdom
e-Print	Electronic print
e-Research	Electronic research
HEIs	Higher education institutions
ICT	Information and communications technologies
LIASA	Library and Information Association of South Africa
LIS	Library and Information Services
NRF	National Research Foundation, South Africa
RDM	Research data management
SA	South Africa
SU	Stellenbosch University
UCT	University of Cape Town
UK	United Kingdom
UoT	University of technology
USA	United States of America
UWC	University of the Western Cape

CHAPTER ONE: INTRODUCTION

1.1 Introduction and study context

Continuing education is essential for the academic librarian's continuing professional development particularly for those supporting postgraduate students. Librarians find themselves in a shifting environment where technologies, methods and practices continually change. Student body diversity (in terms of culture, creed, nationality, language and information literacy levels) is varied with each and every new intake or enrolment.

The Higher Education Green Paper (South Africa, Department of Higher Education and Training, 2012: x) states that the 2011 university enrolment headcount was estimated at 899 120 and the aim is to increase this number to 1 500 000 by 2030. These statistics have huge implications for higher education institutions in South Africa (SA). Coupled with a shifting technological environment and shifting student diversity, librarians are now faced with a further issue: that of the ever increasing enrolment numbers as mandated by the South African government. With an increase in numbers, available resources are spread more thinly. This trend of increasing enrolment numbers and added pressure on resources is evident at the three traditional universities in the Western Cape, namely, Stellenbosch University (SU), the University of Cape Town (UCT) and the University of the Western Cape (UWC) as well as their associated academic libraries. These three universities and their academic libraries form the research site for this study with particular reference to the postgraduate cohort of the Faculty of Humanities, Arts and Social Sciences (variously named at each of the three universities).

The term **traditional university** is defined as an institution that offers a particular type of academic programme which tends to be "professional and general-formative undergraduate and postgraduate programmes and research [degrees]" (South Africa, Department of Higher Education and Training, 2014a: 7-9). This definition is relevant to academic programmes at Stellenbosch University, the University of Cape Town and the University of the Western Cape. The Cape Peninsula University of Technology, a higher education institution also based in Cape Town, is not included in this study as it is a university of technology UoT). Universities of technology are institutions which "specialise in making knowledge useful"

(Du Pré, 2009: 5) and are defined by the programmes that they offer which tend to be career-orientated focusing on the undergraduate certificate level as well as the diploma level (South Africa, Department of Higher Education and Training, 2014a: 7). Traditional universities and universities of technology differ in terms of their focus and ethos (Du Pré, 2009: 5) as well as the types of degrees that they offer. Section 1.6 of this chapter provides a more detailed differentiation of the two types of higher education institutions in the South African context. The difference in education and research foci between these two types of higher education institutions has implications for the composition of the cohort of postgraduate students, particularly in the Humanities, Arts and Social Sciences; hence, the decision to delimit this study to traditional universities in the Western Cape, South Africa.

At the University of Cape Town undergraduate and postgraduate enrolment numbers have been on the steady increase from 2011 – 2013. This increase in enrolment numbers has been stated by reports on post-school education and training in South Africa for the years 2011, 2012 and 2013 (South Africa, Department of Higher Education and Training, 2013; 2014b; 2015). Latest reports are not yet available. At a postgraduate level, enrolment numbers have increased from 7 925 in 2011 (South Africa, Department of Higher Education and Training, 2013: 12), to 8 155 in 2012 (South Africa, Department of Higher Education and Training, 2014b: 6) and to 8 630 in 2013 (South Africa, Department of Higher Education and Training, 2015: 22).

Total undergraduate and postgraduate enrolment numbers at Stellenbosch University have also been on the increase. The *Fact book part 1: student enrolments for 2014* reports an increase in the total number of undergraduate and postgraduate enrolment numbers from 2008 to 2014 at Stellenbosch University across the type of qualification and year of enrolment (Stellenbosch University, 2014: 15). The undergraduate enrolment numbers increased from 15 219 in 2008 to 18 138 in 2014 whilst the postgraduate enrolment numbers grew from 8 427 in 2008 to 10 119 in 2014 (Stellenbosch University, 2014: 15).

Similarly, in the reports on post-school education and training in South Africa for the years 2011, 2012 and 2013 (South Africa, Department of Higher Education and Training, 2013; 2014b; 2015), enrolment data for both undergraduate and postgraduate programmes at the

University of the Western Cape have been presented. In 2011, the total enrolment figures were 18 764 with undergraduate numbers totalling 14 874 and postgraduate numbers totalling 3 890 (South Africa, Department of Higher Education and Training, 2013: 12). In 2012, the total enrolment figures increased to 19 591 with 15 595 undergraduate enrolments and 3 996 postgraduate enrolments (South Africa, Department of Higher Education and Training, 2014b: 6). In 2013 the total enrolment figures increased further to 20 383 with 15 979 undergraduate enrolments and 4 404 postgraduate enrolments (South Africa, Department of Higher Education and Training, 2015: 22), demonstrating the general trend of growing enrolment numbers between the years 2011 – 2013, for this particular university.

These statistics, displaying increased enrolment numbers, indicate that equally affected are the libraries associated with the three selected universities where resources and services now need to be distributed over a larger pool of students. Increasing the undergraduate and postgraduate throughput and retention is another important objective of any academic institution and library, and currently it has been named as an area of great interest according to the *2016 ACRL top trends in academic libraries* report (Association of College & Research Libraries [ACRL] Research Planning and Review Committee, 2016: 276). It is assumed that an increase in undergraduate and postgraduate throughput and retention numbers will lead to an increase in the number of students enrolling in further higher education studies which would then demonstrate the institution's and library's commitment and response to the recommendations of the Higher Education Green Paper which states that "PhD numbers are far too low" (South Africa, Department of Higher Education and Training, 2012: 13). As at 2007, South Africa was calculated to have produced 26 PhDs per million people compared to Brazil with 52 per million and Australia (AU) with 264 per million (Academy of Science of South Africa [ASSAf], 2010: 46). It is therefore in the academic institution's best interest to monitor the quantity and quality of undergraduate and postgraduate throughput and retention, and to support the Department of Higher Education and Training in its aim to assist in creating a new generation of postgraduates, researchers and academics in order to renew and improve commitment to research and development in South Africa (South Africa, Department of Higher Education and Training, 2012: ix).

1.1.1 University of Cape Town

The University of Cape Town is the oldest university in South Africa and is generally regarded as one of the leading universities on the African continent in the areas of teaching and learning, and research. Its various campuses are situated across Cape Town with the main campus situated at the foot of Devil's Peak, Table Mountain. The University of Cape Town has six faculties which include Commerce, Engineering and the Built Environment, Law, Health Sciences, Humanities and Sciences which are all situated in and around the Cape Town area (see Figure 1.1). In terms of the student body, latest available figures show that 26 322 students were enrolled in 2014. Enrolment for undergraduate programmes totaled 17 183 while postgraduate enrolment totaled 9 139 (University of Cape Town, 2015b).

The Faculty of Humanities is one of the largest faculties at the University of Cape Town with approximately 6 000 students in the 2014 registration year. Of these, 27% were postgraduates. The Faculty has 15 academic departments which represents three main groups, namely: the Arts, the Social Sciences and the Creative and Performing Arts. Undergraduate enrolment numbers in the Faculty for 2015 were 4 367 and postgraduate enrolment numbers were as follows: Honours 492, Masters 590, PhD 237 and Postgraduate Diploma 296. The total enrolment number for 2015 was 5 982 as at March 2015 (University of Cape Town, 2015a).

The University of Cape Town Libraries consists of the Chancellor Oppenheimer Library as well as nine branch libraries situated on various campuses. The Chancellor Oppenheimer Library houses the Commerce, Engineering and the Built Environment, Humanities and Sciences divisions. The nine branch libraries are situated on various campuses in close proximity to the academic departments they serve. The branch libraries are: Bolus Herbarium Library, Brand Van Zyl Law Library, Built Environment Library, Health Sciences Library, Hiddingh Hall Library (which houses drama, fine art and history of art collections), Institute for Child Health Library, Jewish Studies Library, Special Collections and the WH Bell Music Library (University of Cape Town Libraries, 2013).

1.1.2 Stellenbosch University

Stellenbosch University is situated in the university town of Stellenbosch which is 50 kilometers from Cape Town. It is located in the hub of the Western Cape winelands and consists of ten faculties namely: AgriSciences, Economic and Management Sciences, Medicine and Health Sciences, Engineering, Military Sciences, Arts and Social Sciences, Science, Education, Law and Theology (Stellenbosch University, 2015a). Of the ten faculties, eight are situated on the main campus which is in the Stellenbosch area (see Figure 1.1) while the Faculty of Medicine and Health Sciences is located on the Tygerberg[1] campus (Stellenbosch University, 2015d). The remaining faculty, the Faculty of Military Sciences is located at the South African Defence Force Military Academy in Saldanha[2] and is unique to South Africa and one of only two of its kind in Africa (Stellenbosch University, 2015a). Latest available figures show that 29 393 students were enrolled at Stellenbosch University in 2014 and the postgraduate student body in 2013 comprised of 10 119 students which represents 34.4% of all registered students during that particular year (Stellenbosch University, 2015c).

The Faculty of Arts and Social Sciences at Stellenbosch University consists of 18 departments which form three main groups namely: Arts, Languages and Social Sciences (Stellenbosch University, 2015b). Enrolment numbers for 2014 for the faculty were: 3 347 undergraduate students, 1 485 postgraduate students and 385 special students[3]. It is the second largest faculty with a grand total enrolment of 5 223 students in 2014 (Stellenbosch University, 2014: 16).

Stellenbosch University Libraries consists of five branch libraries and a central or main library called the JS Gericke Library (Stellenbosch University, 2011). The five branch libraries are: The Medicine & Health Sciences Library, The Engineering & Forestry Library, The Music Library, The Theology Library and the Stellenbosch University Bellville Park Campus Information Centre (USBI) (Stellenbosch University, 2011).

[1] The Tygerberg campus is approximately a 30 minute drive by car to the University of Stellenbosch's main campus in the university town of Stellenbosch.
[2] Saldanha is located on the West Coast of South Africa (see Figure 1.1).
[3] Special students are students who have enrolled for a module and not a degree.

1.1.3 University of the Western Cape

The University of the Western Cape is well known for the part it played during the struggle years of oppression in South Africa (University of the Western Cape, 2013b) and is regarded as one of South Africa's historically disadvantaged universities as opposed to the University of Cape Town and Stellenbosch University which are among South Africa's historically advantaged universities.

Historically advantaged and disadvantaged universities emerged in South Africa as a result of apartheid (policy of 'separate development' among race groups), headed by The National Party government of the time, which ingrained divisions in society including divisions in education in South Africa (Bunting, 2006: 36). During The National Party government rein, higher education institutions in South Africa ranged from well-developed and well-resourced universities (historically advantaged) to universities that were under-developed and frequently facing many challenges and difficulties (historically disadvantaged). Today there are 26 higher education institutions in South Africa. These institutions consist of traditional universities, universities of technology (UoTs) and comprehensive universities (CU) (South Africa, Department of Higher Education and Training, n.d.).

In 1959 UWC was established as a college which allowed so-called *Coloured*[4] people to enroll and was named the University College of the Western Cape. In 1970 it became a university and was allowed to award its own degrees and diplomas (University of the Western Cape, 2013b). This university is situated in a suburb called Bellville which is approximately 17 kilometers from the University of Cape Town and 25.2 km from Stellenbosch University (see Figure 1.1). During 2014 and 2015 respectively the enrolment numbers were 20 582 and 20 382 (Benjamin, 2016)[5]. In 2014 undergraduate enrolment numbers were 16 159 whilst postgraduate enrolment numbers were 4 423, and in 2015 enrolment numbers for undergraduates and postgraduates were 16 259 and 4123, respectively (Benjamin, 2016). The University of the Western Cape consists of seven faculties, namely: Faculty of Arts, Faculty of Community and Health Sciences, Faculty of

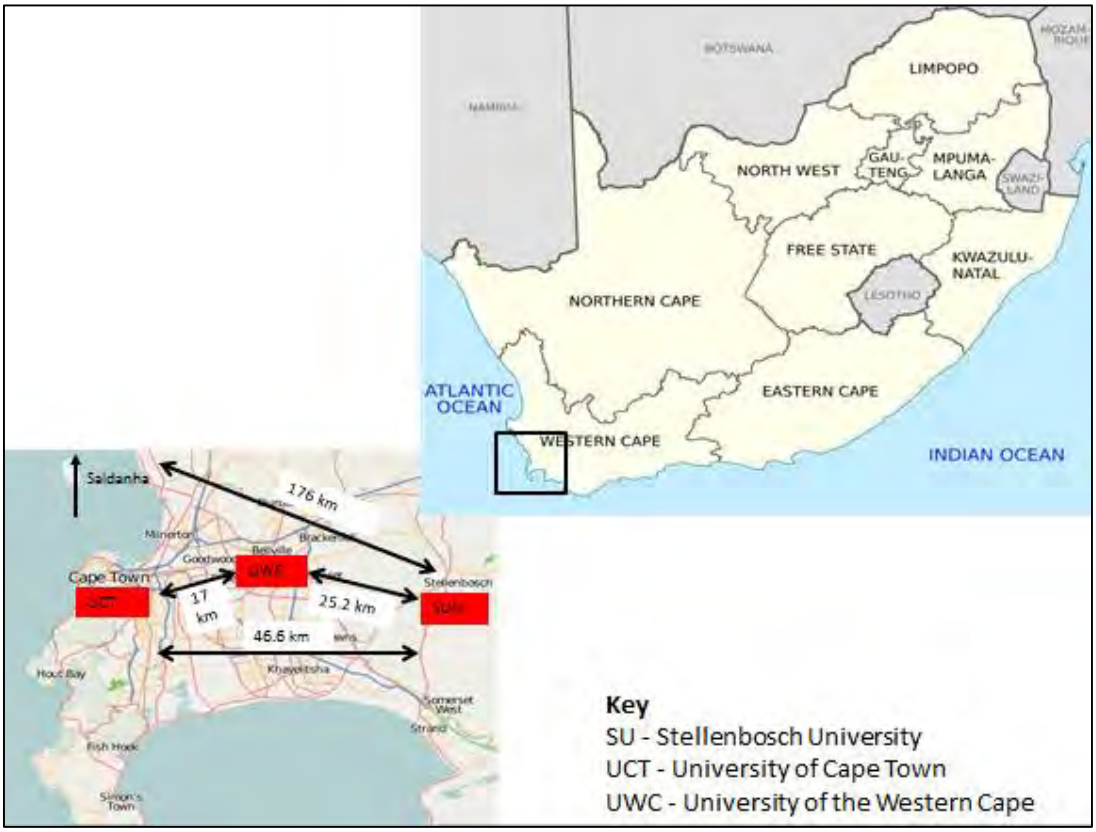
[4] Ethnic group of mixed race

[5] There was an absence of enrolment statistics for the University of the Western Cape on its websites. The researcher therefore contacted the University for this information.

Dentistry, Faculty of Economic and Management Sciences, Faculty of Education, Faculty of Law and the Faculty of Natural Sciences all situated in and around the Bellville area (see Figure 1.1) (University of the Western Cape, 2013c). The Faculty of Arts has 11 departments as well as two centres for research (University of the Western Cape, 2013d). The University of the Western Cape Libraries consists of the main library, Dentistry, the School of Government and Centre for the Study of Higher Education (CSHE) (University of the Western Cape. 2013a).

The University of the Western Cape consists of seven faculties, namely: Faculty of Arts, Faculty of Community and Health Sciences, Faculty of Dentistry, Faculty of Economic and Management Sciences, Faculty of Education, Faculty of Law and the Faculty of Natural Sciences all situated in and around the Bellville area (see Figure 1.1) (University of the Western Cape, 2013c). The Faculty of Arts has 11 departments as well as two centres for research (University of the Western Cape, 2013d). The University of the Western Cape Libraries consists of the main library, Dentistry, the School of Government and Centre for the Study of Higher Education (CSHE) (University of the Western Cape. 2013a).

Figure 1.1: Map showing the three selected universities in the Western Cape in relation to each other in terms of distance



Source: Adapted from National Geographic Society (1992: 94).

Figure 1.1 illustrates the geographical locations of the three selected universities within the Western Cape, South Africa as well as the distance in kilometers from each other. All of the academic faculties at the University of Cape Town and the University of the Western Cape are situated in and around the Cape Town and Bellville areas, respectively. At Stellenbosch University ten faculties are situated in and around the Stellenbosch area with one faculty at the Tygerberg campus and the remaining faculty (Faculty of Military Sciences) is situated on the West Coast of South Africa, 176 kilometers from Stellenbosch University.

This study focuses on the Faculty of Humanities, Arts and Social Sciences (variously named at each of the three selected universities in the Western Cape). The researcher is currently employed as a librarian within the University of Cape Town Libraries humanities division and therefore the decision to focus on this faculty is a practical one due to familiarity with and accessibility to this study sector. Additionally, the Faculty of Humanities at the University of

Cape Town has seen the largest annual growth from 2006 to 2010 - the annual growth was calculated at 7.7% (University of Cape Town, 2011: 1). At Stellenbosch University, the Faculty of Arts and Social Sciences is the second largest. According to the *Statistics on post-school education and training in South Africa: 2013* report, the Humanities and Social Sciences is the largest faculty at the University of the Western Cape (South Africa, Department of Higher Education and Training, 2015: 22). Therefore, findings using these faculties are likely to find relevance for the rest of the universities in South Africa as well. Whilst the terminology differs among the three selected universities in the Western Cape province, this study adopts the generic label of humanities librarian which will include titles such as faculty librarian, subject librarian and liaison librarian for the Humanities, Arts and Social Sciences Faculty (again, variously named at each of the three universities).

The background information provided, relating to the size and shape of the selected universities, is of critical importance as it illustrates trends for current and future service provision by the libraries associated with these universities. It is important to take cognisance of these statistics as they demonstrate significant demographic patterns and potential membership for the associated libraries. This, in turn, has implications for the services that the libraries offer their user communities (in terms of undergraduate and postgraduate research support as well as staffing requirements).

1.2 Research problem

Mathew, Baby and Pillai (2010: 215) claim that there is a shared acknowledgement by librarians in terms of their professional responsibility towards their work. Librarians need to continually develop themselves professionally as they have a social responsibility toward users and the organisation; a longing for advancement; pride in the profession and a deep and honest concern for the future of libraries across the globe (Mathew, Baby and Pillai, 2010: 215).

Competent libraries should equal competent library staff and, in turn, should equal competent students (Mathew, Baby, and Pillai, 2010: 216); hence, the importance of identifying the knowledge and skills required by the humanities librarian supporting postgraduate students. In this way, librarians find themselves in a central position to the

success of the academic institution, the success of the library and the success of the student's academic life (Maesaroh and Genoni, 2009: 525). Sewdass and Theron (2004: 105) argue that the focus should not only be on library and information personnel maintaining their current skills and competencies, but that attention should be focused on acquiring new knowledge, skills and competencies for a changing profession.

Therefore, current and future library and information services (LIS) professionals, such as humanities librarians supporting postgraduate students, will need to have the appropriate knowledge and skills to meet the challenges of future information and user environments. Hence, this study attempts to investigate the core competencies of the humanities librarian supporting postgraduate students at the three selected universities in the Western Cape, particularly in the current digital environment.

1.3 Objective of the study

The objective of this study was to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition.

1.4 Critical questions

The critical questions that follow had been generated to address the above objective. The generation of these critical questions to guide the study was informed by the Core Competency Theory, foundational work for which was done by Philip Selznick (1957) and supported by the later works of Prahalad and Hamel (1990), Prahalad (1993), Lahti (1999) and Hafeez, Zhang and Malak (2002). Core Competency Theory (discussed further in Section 2.2.1 of Chapter 2) focuses on workplace core competency requirements and includes both organisational level core competencies as well as individual level core competencies, both of which have been taken into account in the generation of the following critical questions:

1.4.1 What knowledge and skills do humanities librarians supporting postgraduate students currently possess?

1.4.2 How are academic libraries currently supporting and assisting the professional development of their humanities librarians working with postgraduate students?

1.4.3 What are the necessary knowledge and skills that humanities librarians require in order for them to effectively provide support to postgraduate students in the current digital age?

1.4.4 What tools and resources are required by the humanities librarians in order to support postgraduate students?

1.4.5 What role does the parent organisation play in preparing humanities librarians for postgraduate student support?

1.5 Significance of the study

It is anticipated that the outcomes of this study would benefit academic libraries by contributing to the existing body of knowledge relating to knowledge and skills required by the contemporary LIS professional for a changing research and LIS environment. The knowledge and skills framework emanating from this study, it is hoped, would contribute to current LIS competency frameworks and indices. On a more localised scale, it is hoped that the knowledge and skills framework would serve to benefit numerous stakeholders such as students, librarians, LIS schools, academic libraries and universities in the Western Cape and South Africa, generally.

While this qualitative study focuses on the cases of three selected universities in the Western Cape, the knowledge, findings and outcomes generated from this research may be considered as transferrable, relevant or beneficial to other higher education institution libraries in South Africa (with similarities in size and shape). Further, the evidence and details of this study may serve to illuminate larger societal and institutional issues and so, may be valuable in other settings and may be used to inform practices elsewhere as well.

1.6 Relevant definitions

The following terms and their definitions are relevant to the study:

1.6.1 Competency/competencies

For the purposes of this study, the term competency or competencies will be used to describe a set of “capabilities expected of a person hired to perform a specific job or upon successful completion of a course of study or training” (Reitz, 2015). Reitz (2015) further

explains that the knowledge, skills and capabilities which are essential within the profession of librarianship is normally closely linked to a particular specialisation. A further useful definition of this term, for the purposes of this study, is: "a competency is the capability of applying or using knowledge, skills, abilities, behaviors, and personal characteristics to successfully perform critical work tasks, specific functions, or operate in a given role or position" (Rajan and Kumar, 2015: 147). Tanloet and Tuamsuk (2011: 125), in the academic library context, see core competencies as being that which refers "to the characteristics of information professionals that reflect their knowledge, skills, and personal attributes they appropriately and successfully use in the operation of [the] information profession according [to the] academic library's goal". Isberg (2012: 36) defines competence as the "ability and willingness of an individual to perform a specific task by applying knowledge and skills". In essence then, and for the purposes of this study, competency or competencies is the collective term referring to knowledge, skills and personal attributes required for a specific job.

1.6.2 Continuing professional development

The *Online Dictionary for Library and Information Science* (Reitz, 2015) defines professional development as:

> …further study undertaken during employment by a person trained and educated in a profession, sometimes at the initiative of the employer but also through voluntary attendance at conferences, workshops, seminars, or enrolment in postgraduate courses, particularly important in professions that have a rapidly changing knowledge base.

Sewdass and Theron (2004: 105) use the term in the context of the growth and development of library and information services personnel with the objective of strengthening and developing the library and information services sector. This latter definition of continuing professional development has direct relevance for this study.

1.6.3 The Humanities

The Oxford English Dictionary Online (2015) defines the [arts and] humanities as:

> …the branch of learning concerned with human culture; the academic subjects collectively comprising this branch of learning, as history, literature, ancient and modern languages, law, philosophy, art, and music.

Therefore, the Humanities is an academic domain incorporating a variety of academic disciplines that involve the study of human culture. Social Science is defined as "the study of human society and social relationships; a subject within this field, as economics, politics, sociology, etc." (Oxford English Dictionary Online, 2015). However, for the purpose of this study, when using the term Humanities, the Arts and Social Sciences are also included as all three domains relate, in one way or another, to human culture.

1.6.4 Humanities librarian

A humanities librarian, for the purposes of this study, is defined as a librarian who supports the disciplines in the Humanities and/or Arts and/or Social Sciences. The support that librarians offer may be in the form of academic support, for example, by assisting the postgraduate student in the literature review stage of research or during the selection of a particular research methodology or with referencing and citation management (to name but a few). At different institutions different nomenclature is used. Some institutions, for example, use the term 'faculty librarian' while others use 'subject librarian' or 'liaison librarian'. For the purposes of this study, the term 'humanities librarian' will be used.

1.6.5 Knowledge and skills

Some define knowledge as "information and skills acquired through experience or education; awareness or familiarity gained by experience" (Pearsall, 2002: 786). In the context of LIS and specifically academic libraries, Tanloet and Tuamsuk (2011: 125) define knowledge as:

> …the knowledge and understanding of information professionals that is derived from their own accumulated experiences or from self-learning and development. It consists of information, knowledge, and experiences related to the work in academic libraries.

Skill, on the other hand, is defined as "the ability to do something well; expertise or dexterity" (Pearsall, 2002: 1344). Again, Tanloet and Tuamsuk (2011: 125), in the LIS

academic library context, refer to skills as “the ability of the information professionals derived from practice to the level of expertise in the work related to the operation of academic libraries”. For the purposes of this study, knowledge (understanding of) and skills (ability to do) are considered to be the units that constitute competency.

1.6.6 Postgraduate and postgraduate support

The Oxford English Dictionary Online (2015) defines postgraduate as:

> Of or relating to the period after graduating; designating a course or institution for people undertaking a higher qualification after completing a first degree, or a student taking such a course. A student taking a postgraduate course or other higher qualification; (also) a graduate who has successfully completed such a course or qualification.

Therefore, a postgraduate or a postgraduate student is someone who has been awarded a first degree or undergraduate degree and who is now registered for further studies at a post degree level or has already received a postgraduate degree.

Postgraduate support is support offered to postgraduate students by higher education institutions. For the purposes of this study, it is meant to include any kind of academic support required by the postgraduate student during his or her academic life. An example of postgraduate support from the library would be assistance with referencing management tools such as *RefWorks, EndNote*, *Mendeley* and *Zotero*; literature review or systematic review of literature; where to publish; creating a researcher identification profile or how to manage one’s data.

1.6.7 Traditional universities and universities of technology

The 26 higher education institutions in South Africa are made up of traditional universities, universities of technology (UoTs) and comprehensive universities (CU) (South Africa, Department of Higher Education and Training, n.d.). Traditional universities differ from universities of technology in that traditional universities offer programmes which are deemed to be “professional and general-formative” which results in “undergraduate and postgraduate programs and research” (South Africa, Department of Higher Education and Training, 2014a: 7). The universities of technology offer “career-focused and professional[ly]

orientated" programmes which result (mainly) in the undergraduate certificate and diploma (South Africa, Department of Higher Education and Training, 2014a: 7-9). Universities of technology are also known to offer undergraduate and postgraduate degree programmes but this is only with approval by government and in specific areas of strength (South Africa, Department of Higher Education and Training, 2014a: 7). Whereas the focus on fundamental knowledge by traditional universities is noted, universities of technology are critical as they provide "qualified graduates to the labour market" (Du Pré, 2009: 20), graduates who possess certain skills, who are innovative, technologically minded and are closely linked to industry due to career-oriented programmes (Du Pré, 2009: 21-28). For the purposes of this study, only traditional universities in the Western Cape, South Africa were selected as research sites.

1.7 Overview of research methodology

The constructivist paradigm frames this study and is commensurate with its qualitative approach. The research design is that of multiple case studies. Core Competency Theory was selected to inform the study, particularly the critical questions guiding the study, the data collection instrument design as well as data analysis and interpretation. Empirical data was collected by conducting semi-structured interviews with purposively sampled librarians and by conducting focus group discussions or interviews with postgraduate students from the three selected traditional universities within the Western Cape, South Africa. The interviews and focus group discussions attempted to elicit data relating to the study's critical questions, for example, current knowledge and skills of the humanities librarians; support structures offered to the humanities librarians within the three traditional universities; and, information and related needs and requirements of the postgraduate students. Data was analysed using *NVivo 11 Pro* (which is a qualitative data analysis software application) as well as thematic content analysis (done by the researcher). Findings from the literature (which also served as an important source of data for this study), the interviews and focus group discussions were then discussed and interpreted in the context of the literature reviewed, the theory supporting the research, and in the light of the study's objective and critical questions guiding it. Based on this discussion, conclusions are drawn and recommendations are made.

1.8 Limitations and delimitations of the study

Limitations and delimitations within a study are common occurrences of research. These terms apply throughout the research process. Limitations are implicit characteristics that result from the method and design of a study whereas delimitations result from specific choices made by the researcher (Leedy and Ormond, 2010: 57; Creswell, 2012: 199; Simon and Goes, 2013).

1.8.1 Limitations of the study

Recruitment and study sample size could possibly limit the study as students' disinterest may affect the size of the sample due to research fatigue. To combat this limitation purposive sampling was adopted as the researcher, who is a practising humanities librarian supporting postgraduate students, was in a position to identify and gain access to postgraduate students in the humanities faculties for participation in this study.

At the time of data collection (late 2015/early 2016), higher education institutions in South Africa had just experienced months of protest action as part of the #FeesMustFall movement sweeping the higher education sector in the country. As a result of this protest action, academic classes and examinations were suspended at some of the higher education institutions across South Africa. The University of the Western Cape was one of the universities affected by the protest action and therefore the institution took a principled decision not to expose its students to any external researchers unless the researcher was co-supervised by a member of the academic staff at the University of the Western Cape. Due to this decision, data was not collected from masters and PhD students at the University of the Western Cape. However, the researcher felt confident that adequate inclusion of masters and PhD students from the other two traditional universities would obviate any bias arising from these unavoidable circumstances.

This researcher is situated within the humanities division of the University of Cape Town Libraries and, at the time of conducting this study, was herself a masters student within the Humanities Faculty at the University of Cape Town. This proximity to both the site of research as well as the subject of study, immediately posed challenges relating to bias. To counter the effects of this possible limitation, the researcher made every effort to observe

objectivity. However, the researcher reflects that her understanding of the context and current role as student and practising librarian offers the study a high level of sensitivity. After all, qualitative research "encourages the researcher[s] to embrace their involvement and role within the research [process]" (Golafshani, 2003: 600) and constructivist research does allow the researcher's background and experience to contribute to the study (Creswell, 2014: 8).

1.8.2 Delimitations of the study

Only the three traditional universities in the Western Cape formed part of this study. All universities outside of the Western Cape were not included due to the nature and scope of the research study. Universities of technology did not form part of the study as they differ from traditional universities in terms of their educational and research focus as well as in the composition of the postgraduate cohort (as explained in Section 1.1 of this chapter).

Only the humanities librarians at the three traditional universities in the Western Cape formed part of the study. It was intended that only masters and PhD students at the three selected universities form part of this study. All other postgraduate students such as honours and postgraduate diploma students were not included. The researcher's experience (as a practising humanities librarian supporting postgraduate students) allowed her to make a judgment call, in the interest of richer data collection, to focus on masters and PhD students as they form a more homogenous grouping in terms of research needs and hence would be able to engage more seamlessly during the focus group engagements. Honours and postgraduate diploma students are more course-based and hence their research needs are not likely to be at the same level as that of masters and PhD students. The study's objective and the critical questions guiding the study lent themselves to research behavior of masters and PhD students more than that of honours and postgraduate diploma students.

1.9 Structure of the research report

The research report is divided into five chapters. Chapter One presents the introduction and study context highlighting the dynamic library environment in the higher education sector, in general, and at the three traditional universities in the Western Cape, in particular. It also

presents the study's research problem, objective, critical questions guiding the study, the significance of the study, relevant definitions, overview of the research methodology and limitations and delimitations of the study. The Core Competency Theory supporting the study is presented in Chapter Two which also reviews literature relating to changing knowledge and skills requirements in a digitised academic library environment. Chapter Three presents the study's qualitative research approach, its constructivist research paradigm, multiple case study design and research methods, including the procedures followed in collecting data from humanities librarians and postgraduate students. Data analysis methods used are also explained in this chapter. While Chapter Four presents the findings from the analysis of data collected from the interviewed librarians and postgraduate student respondents, Chapter Five discusses the main findings in the context of the theory supporting the study, the literature reviewed and the research questions guiding the study. Based on this discussion, the final chapter draws conclusions, makes recommendations on the knowledge and skills requirements for the humanities librarian in the current dynamic and highly digitised academic library context, including the presentation of a knowledge and skills framework for humanities librarians supporting postgraduate students.

1.10 Chapter summary

Chapter One has highlighted the study's context focusing on the changing environment of higher education institutions with particular reference to the Higher Education Green Paper 2012 and its national mandates which speak to increased enrolment numbers, greater undergraduate and postgraduate throughput and retention, increasing PhD numbers and the quality of researchers. Additionally, Chapter One has discussed the higher education environment at the three traditional universities in the Western Cape of South Africa with particular reference to increasing enrolment numbers by faculty. Chapter One, further, articulated the study's research problem, its objective and critical questions guiding the study, significance of the study, relevant definitions, overview of the research methodology and the limitations and delimitations of the study. The next chapter (Chapter Two) presents, firstly, the theory supporting the study and then the review of literature which is structured thematically and which relates to the changing knowledge and skills requirements in a digitised academic library environment.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature review is an ongoing and invaluable part of the research process. It is at this stage that the researcher contextualises and underpins the study within the larger context of the topic (Wisker, 2008: 170). By reviewing literature, the researcher is able to investigate current theories and models regarding a particular topic. According to Bless, Higson-Smith and Sithole (2013: 49) there are seven purposes of a literature review. A literature review aims to:

- provide a conceptual or theoretical framework of the research which informs the study;
- illustrate how the topic under investigation was previously studied;
- identify the gaps in previous research;
- discover and articulate relationships (similarities and contradictions) between previous research and the current study;
- identify elements in the research that may vary;
- consider definitions used in previous research; and
- determine the advantages and disadvantages of various research methods used in previous studies.

This chapter will firstly focus on the theory informing the study which will be discussed in Section 2.2. The literature review (Section 2.3) will then be presented and it will attempt to address some of the above purposes.

2.2 The role of theory in qualitative research

The role and location of theory in qualitative research and the degree to which theory is applied has been a point of discussion and consideration for many scholars (Hammersley, 1995; Maxwell and Mittapalli, 2008; Tavallaei and Abu Talib, 2010). Thomas Kuhn (1970), cited in Maxwell and Mittapalli (2008: 877), was of the opinion that “all observation is theory-laden” and therefore “theory is an inescapable component of all research, whether or not it is explicitly acknowledged”. Maxwell and Mittapalli (2008: 877) argue that the use of theory in qualitative research differs from quantitative research such as that done by the

natural sciences. Qualitative research aims to understand actions, settings and themes by means of an inductive investigation rather than designing research which will need to be applied or tested against an observational statement (Hammersley, 1995: 4) so that "research…draws on these theories selectively and eclectically, rather than deliberately seeking to contribute to a particular theory" (Maxwell and Mittapalli, 2008: 877). For this reason then, this qualitative study will attempt to select and use the most relevant elements of the identified theory.

Scientific use of the term theory assumes that *theory is abstract*, *theory is general*, and *theory is typically explanatory* (Maxwell and Mittapalli, 2008: 877). These assumptions have made it challenging for qualitative research to adopt theory. In terms of the statement that theory is abstract, positivism views theory as consisting "of a set of abstract (ideally, mathematical) propositions, some of which take the form of 'laws', that predict a range of specific events or results" (Maxwell and Mittapalli, 2008: 877). However, qualitative research requires:

> …a less restrictive conception of theory….one that sees theory as a simple set of concepts and postulated relationships…a model or framework that has implications for understanding or action… recognition that theories, like most of human thought, are to an important extent metaphorical rather than strictly logical in nature…such a conception of theory is much more compatible with qualitative research, which focuses on concrete situations, events and meaning.
>
> (Maxwell and Mittapalli, 2008: 877-878)

Therefore this constructivist qualitative study will endeavour to use the selected theory in a manner that allows for the understanding of concepts, actions, settings and themes rather than for the purposes of explaining cause and effect, as happens with positivist quantitative research. When claiming that theory is explanatory, then issues of cause and effect need to be considered because "for most scientists, explanation is causal explanation; as explanation claims to describe what caused a particular result or state of affairs" therefore leaving very little room for the ability that qualitative research has to interpret meaning, processes and context of a particular event or situation (Maxwell and Mittapalli, 2008: 878).

Theory is often assumed to be general rather than particular so that broad generalisations can be made. Qualitative researchers focus on "specific, local understanding of the settings and activities they study and rarely claim that they have developed propositions that applied to a wide range of settings or activities, as theory in the traditional sense would seem to require" (Maxwell and Mittapalli, 2008: 878). In qualitative research, as with the current study, the term transferability (instead of generalisability) is preferred as the term is more flexible and allows the researcher to adopt and apply the conclusions of one research study to other similar contexts (Maxwell and Mittapalli, 2008: 878). The findings from the case studies of university libraries in the Western Cape may be transferable to other similar university libraries in South Africa.

Hammersley (1995: 7; 11) presents his view on the role of theory in qualitative research by arguing that a positivist view of theory should be adopted, "drawing on ideas about the explanation of social phenomena developed by philosophers of history" and thus bringing about a hybrid approach. Tavallaei and Abu Talib (2010: 576) in turn postulate that because qualitative research is focused on the deeper meaning and understanding of a real-life event, "the basic structure of this [qualitative] research method cannot be based on theory". For the purposes of this study, theory was applied selectively throughout the discourse of this study, allowing the researcher to select and use the most relevant elements of the selected theory as well as endeavour to use the theory in manner that allowed for the understanding of concepts, actions, settings and themes relating to the research problem under investigation.

2.2.1 Theory supporting the study

Philip Selznick's book *Leadership in administration: a sociological interpretation* (1957) is considered to be a foundational study of institutional-leadership management. Selznick (1957) writes in the context of executive management training and military leadership (Selznick, 1957) and presents the characteristics of a successful organisation, debating ideas of leadership, competency, and efficiency in order for the organisation to flourish and succeed. Selznick introduces the reader to the term *core competency* which is a concept stemming from organisational management theory. For the purposes of this study, core competency will be the central theory taken from Selznick's work.

A theory, as Leedy and Ormrod (2010: 5) explain, is “an organized body of concepts and principles intended to explain a particular phenomenon”. This study endeavours to use Core Competency Theory in order to understand the knowledge and skills required by the humanities librarian supporting postgraduate students, with particular consideration for the current digital age.

Core Competency Theory was used to study both public and private organisations looking into efficiency and distinctive competence of an organisation, attempting to improve institutional leadership and decision-making (Selznick, 1957: 1-3). Selznick believed that both the organisation (at large) and the individuals (that constitute the organisation) would need to be considered when examining competencies (Selznick, 1957: 4-5).

Selznick (1957) discusses core competencies as that which gives an institution (corporation, company or organisation) competitive advantage in the market through various business activities thereby allowing businesses to respond to developments in the changing business world. More recently authors C.K. Prahalad and Gary Hamel defined core competency as the "collective learning across the corporation" (Prahalad and Hamel, 1990: 4). For these authors, core competencies are the sum total of knowledge and technical capabilities of an institution (corporation, company or organisation) which allows that institution to remain competitive in the marketplace (Prahalad and Hamel, 1990: 1).

Prahalad (1993: 45) cautions that one should not mistake core competencies with core technologies and capabilities: “Core technologies are a component part of core competencies. Core competency results when firms learn to harmonize multiple technologies” (Prahalad, 1993: 45). This author continues his explanation by stressing that “technology can be stand-alone” whereas:

> …competence represents tacit as well as explicit learning and is the cumulative knowledge base involving a large number of people [and] is critical to understanding core competence. Technical capabilities as stand-alone skills are not the key to understanding core competencies. Competence is embedded in the whole organization.
>
> (Prahalad, 1993: 45)

Furthermore, core competence consists of three variables namely, technology, governance and collective learning:

> The key to understanding competence is that although it incorporates a technology component, it also involves the governance process inside of the organisation (the quality of relationships across functions, across business units), and collective learning (across levels and functions) inside the company.
>
> (Prahalad, 1993: 45)

According to Hafeez, Zhang and Malak (2002: 28) competence-based theories (such as the Core Competency Theory) focus on core competencies of an organisation (as a whole) and not on individual core competencies. Selznick (1957), Prahalad and Hamel (1990) and Hafeez, Zhang, and Malak (2002) discuss core competencies at an organisational level. However, Lahti (1999) makes the distinction between core competencies as "individual level core competencies" and "organizational level core competencies" (Lahti, 1999: 61). Organisational level core competencies are those competencies that can be said to be the institutions strengths and capabilities (collectively): "Organizational level core competencies are the collection of knowledge, skills, abilities and other characteristics (KSAO) of an organization as a whole that are the organization's strengths" (Lahti, 1999: 61). This is what Prahalad and Hamel (1990) allude to in their work relating to Core Competency Theory. Individual level core competencies are those competencies that belong to the individual and that which the individual demonstrates within the organisation (Lahti, 1999: 65). By analysing jobs (occupations), one is able to identify "job competencies to describe the requirements for positions of work" (Lahti, 1999: 64); however it is more applicable to look at the individual as it is he or she who possesses these competencies as "the nature of jobs are changing so it makes more sense to anchor competencies on the individual as opposed to a job" (Lahti, 1999: 65). This speaks to the value of the individual in terms of the core competencies within an organisation which should contribute positively to the performance of that organisation.

Tanloet and Tuamsuk (2011: 123-125) in their study on *Core competencies for the information professional of Thai academic libraries in the next decade (A.D. 2010-1019)* consider individual and organisational competencies as that which assists academic libraries

to enhance their "competitiveness as stated in universities' strategic plans". Blakiston's (2011: 729) research, based in the United States of America (USA), on *Building knowledge, skills, and abilities: continual learning in the new landscape* states that the library, as an organisation, is an institution where learning (both formal and informal) takes place. This learning environment entrenches the idea of collective learning across the organisation where people are given the space to expand their own aptitude. Tannenbaum (1997) cited in Blakiston (2011: 729) explains that organisational performance is directly related to learning environments so that an organisation displaying high performance (productive and competitive) is an organisation that seriously invests in learning (continuing professional development) within the organisation. Rothwell and Lindholm (1999: 90) discuss the use of competency-based approaches in the United States of America linking "organizational strategy and organizational and individual performance" and competencies. A common theme experienced by organisations worldwide is that of downsizing, profit margins declining and markets fluctuating so that increasingly competencies are used as a "human resource management programme" to increase the competitive advantage of an organisation. Luce (2008: 43) remarks that in order for organisations to remain competitive they must be agile, meaning that organisations should be flexible and adaptable to their environment.

This study will consider individual level core competencies (core competencies of the humanities librarian) and how these competencies affect and are affected by technology (ever-changing digital environment), governance processes (institutional support) and collective learning (for example, continuing professional development), focusing on the humanities librarian in supporting postgraduate students. These core competency theoretical concepts are embedded in the critical questions (see Section 1.4 of Chapter One) generated to address the objective of this study. The collective learning variable mentioned by Prahalad and Hamel (1990: 4) speaks well to the constructivist paradigm that this study has adopted.

2.3 Literature review

This review of literature relevant to the study is organised thematically. The themes were selected as they are important concepts stemming from the five critical questions presented

in Chapter One. For example, the theme *continuing professional development* was chosen as it may provide insight into Critical Question 1.4.2: *How are academic libraries supporting and assisting the professional development of their humanities librarians working with postgraduate students?* The themes reviewed include *continuing professional development*, *the digital environment*, *current knowledge and skills*, *category of knowledge and skills*, *competency framework, e-Research* and *research data management*. These themes are also reflective of concepts in the Core Competency Theory that has been selected to inform this study. As explained earlier, relevant aspects of this theory are embedded in the critical questions guiding the study.

2.3.1 The digital environment

Current research has frequently stated that academic libraries are now more digitally and electronically connected than ever before, where tasks are automated and staff require re-skilling (Mathew, Baby and Pillai, 2010; Nonthacumjane, 2011; Smith, Hurd and Schmidt, 2013). Choi and Rasmussen (2009: 457) concur stating that the digital library model is forging new pathways by "transforming resources and services into digital formats to support teaching, learning, and research" and Adanu (2007: 292) describes an academic library environment that is "dynamic" allowing for service delivery in innovative ways.

Information technology has permeated society and has become a necessity, and this digital adjustment in the library environment has made it compulsory for library staff to up-skill or risk becoming irrelevant. Due to technological advancements and rapid innovation in the digital landscape, traditional library services and activities have been altered; and the librarian's skill set now has a shorter lifespan (Nonthacumjane, 2011: 280). The Core Competency Theory (which considers core competencies within the workplace) reflects upon individual level core competencies (Lahti, 1999: 65) and the collective learning that takes place across the organisation (Prahalad and Hamel, 1990:1) rendering knowledge and skills with a longer lifespan (due to librarians revising their knowledge and skills sets) and assisting the organisation with its competitive advantage undertaking.

The University of South Florida is an example of a university library which found itself in a position dictated to by the re-occurring trend of the changing library environment where

library tasks were being automated and the digital environment continually expanding (Smith, Hurd and Schmidt, 2013: 14). Due to the digital age, the need to digitise and automate many traditional library functions became a necessity and, because of this, the library required a workforce skilled in these new technologies and tasks (Smith, Hurd and Schmidt, 2013: 14). "Shrinking budgets and a shrinking workforce due to retirements" as well as "new and diverse duties that no existing staff member had been trained to do" necessitated the re-training and re-positioning of the workforce so as to provide services within the current and future digital environment thereby addressing the issue of the skills gap in the library workforce (Smith, Hurd and Schmidt, 2013: 14). An investigation into whether or not the three university libraries, selected for this study, have faced similar challenges, particularly in the area of postgraduate support, and have been subjected to similar trends (such as staff retirements without replacements, shrinking university budgets and an expanding digital environment) is considered in this study and also to what extent these vagaries have impacted staff.

2.3.2 Continuing professional development

Hegg (1985) cited in Blakiston (2011: 728) argues that continual learning for librarians is due to one of two things: the fear of becoming obsolete or trying to manage and adapt to a changing environment. Blakiston (2011: 729) maintains that library organisations are required to be institutions of "continual learning" that support librarians in their mission for constant education and training in order to be successful in their profession thereby enhancing productivity and assisting the library in its undertaking to remain competitive (Selznick, 1957; Prahalad and Hamel, 1990). In addition to this, shifting roles and shifting job descriptions force libraries and librarians to adapt in order to remain relevant in today's information society.

Due to these shifting roles and changing environments, professional development, according to Isberg (2012: 35-36), becomes a necessary factor in this environment in flux. To remain relevant and up-to-date, professional development of the workforce should be seen as a strategic move in securing the library's future and growth. Isberg (2012: 35-36) claims that the most important aspect of professional development is investing in one of the most valuable resources of an organisation – its workforce.

Maesaroh and Genoni (2009: 528), in their study of Indonesian academic libraries, discuss the desired level of skills, competencies, knowledge and education among Indonesian academic librarians. For this particular study, a questionnaire was administered across 133 Indonesian universities and to all 1 282 academic librarians working at Indonesian universities (2009: 528). The response rate was 63.3% (812 questionnaires were returned and deemed usable for data analysis) (2009: 528). The questionnaire was first developed in English and then translated into Indonesian and the results report on data relating to education and continuing professional development, and ways of improving the quality of services to users (2009: 528). The study reports that staff participation in continuing professional development activities was considered to be at satisfactory levels despite the fact that there were environmental factors such as "availability and standard of education, continuing professional development and workplace learning" (Maesaroh and Genoni, 2009: 525) that hindered and provided very little support for librarians' further development (Maesaroh and Genoni, 2009: 536). The emphasis on continuing professional development, in the Indonesian context, is due to the fact that the quality of the Indonesian education system is poor (Azahahir, 2000 cited in Maesaroh and Genoni, 2009: 525-526). Continuing professional development can then be seen as a practical method for bridging the knowledge and skills gap which is aggravated by poor formal education (Maesaroh and Genoni, 2009: 535).

Secondary and higher education in the South African context has been, at the very least, a situation of inequity where diverse racial groups were privy to dissimilar levels of education. Wild (2012) remarks on secondary education in South Africa saying that "basic education[6] is in crisis, and pupils[7] who do not finish school are often not prepared for the rigors of a degree, with university dropout rates approaching 40%". Coetsee and Weiner (2013: 112) examine academic librarianship in South Africa and comment that this secondary education crisis exacerbates the higher education situation and ill-prepares potential first year university students for a career in academics or as practitioners leaving many with a shortage of the basic and very necessary computer literacy skills, "let alone the high-level

[6] Education prior to higher/tertiary education.
[7] Also known as students.

information literacy skills demanded by HEIs [higher education institutions]" (Coetsee and Weiner, 2013: 112).

Adanu's (2007) study examines continuing professional development among professional librarians in five state-owned university libraries in Ghana. The study endeavoured to examine whether or not the working environment encouraged the activity of continuing professional development among librarians as well as librarians' views on who were the parties responsible for continuing professional development (Adanu, 2007: 292). Data was collected via questionnaires and interviews. The findings indicated that librarians believed that their working environment supported their continuing professional development endeavours and that continuing professional development was the responsibility of both the organisation and the individual librarian (Adani, 2007: 303).

Sambo, Igiamoh and Abu-Udenyi (2014) in their Nigerian study, consider professional librarians involvement in continuing professional development. A questionnaire was used to collect data and the findings of the study revealed that Nigerian libraries have continuing professional development policies; however, challenges such as "poor budgetary provisions, lack of relevant committees, and motivation for staff hinders its implementation" were mentioned (Sambo, Igiamoh and Abu-Udenyi, 2014: 45). Librarians participated in activities such as workshops and conferences as they believed that these activities allowed them to update their knowledge and skills sets (Sambo, Igiamoh and Abu-Udenyi, 2014: 50).

Mathew, Baby and Pillai (2010: 215), Blakiston (2011: 730) together with Tanloet and Tuamsuk (2011: 123) emphasise the gaining of new skills, application of new knowledge and the flexibility to adapt to new situations as key qualities for successful library organisations, successful librarians and competent users. This can then be translated into a staff complement that has increased confidence and empowerment, with an enriched set of skills, abilities and capabilities (Blakiston, 2011: 730) particularly for those staff supporting postgraduate students. Likewise, the current study explores the three university libraries' role in supporting and assisting staff who embark on a journey of life-long learning and continuing professional development.

2.3.3 Current knowledge and skills

Further to the discussion on continuing professional development is acknowledging and understanding the current knowledge and skills held by librarians along with updating or re-skilling for future needs. Kealy's (2009: 572) research focuses on the necessary re-skilling of librarians for future libraries with particular reference to the University of Melbourne Library in Australia. During 2006 and 2007 the University of Melbourne Library underwent major restructuring in terms of its vision for the library, the organisational structure and service model (Kealy, 2009: 573). This was in response to the library becoming more technologically advanced by offering information technology services and multimedia services within the context of new undergraduate degrees being offered at the university (Kealy, 2009: 573). The library was pro-active in adopting a new service model as it took cognisance of the fact that there would be a greater emphasis on supporting academics and their research; and ensuring that library staff were appropriately skilled to support these services into the future (Kealy, 2009: 573). This is a prime example of an organisation requiring to adapt and being flexible in a changing environment in order to remain relevant and competitive (Prahalad and Hamel, 1990: 1). Similarly, this study considers the current knowledge and skills humanities librarians possess as well as future knowledge and skills required in order to meet the challenges of a changing academic library environment.

Ketlhoilwe and Molatedi (2015) in their study of the University of Botswana (country north of South Africa) investigated current and future skills and competencies with regards to reference services staff. Reference services are defined as "all the functions performed by a trained librarian employed in the reference section of a library to meet the information needs of patrons (in person, by telephone, or electronically)" (Reitz, 2015). Reference services are one of the functions performed by academic librarians such as humanities librarians at all three of the universities included in this study. Quantitative research methodology was adopted for this Botswanian study. Questionnaires were used to collect data from the 31 library staff members at the University of Botswana (Ketlhoilwe and Molatedi, 2015: 4). The questionnaire attempted to stimulate an exchange of ideas around issues of current skills and competencies as well as those skills and competencies most necessary in reference services (Ketlhoilwe and Molatedi, 2015: 2). Their study considered three broad groupings of skills and competencies, namely: general skills (also known as

generic skills), technology skills and communication skills (Ketlhoilwe and Molatedi, 2015: 2). Overall findings indicated that more than 50% of the respondents felt that general and personal skills were very important and therefore "librarian's general skills and attitude and personality are considered to be more important than most technical skills" (Ketlhoilwe and Molatedi, 2015: 8). Other studies internationally and locally (South Africa) have come to a similar conclusion; for example, Partridge et al. (2010: 271) argue that personal qualities are more important than technical skills, as in discipline-specific or professional skills. In the Botswanian study, the most important of the technical skills were "online searching and social media" indicating an acknowledgement of the shift of services to online delivery (Ketlhoilwe and Molatedi, 2015: 9).

Orme 2008 (United Kingdom [UK]), Partridge, Lee and Munro 2010 (Australia) and Raju 2014 (South Africa) all came to the conclusion in their studies of workplace LIS knowledge and skills requirements that generic skills (also referred to as transferrable skills in that they are applicable to all disciplines) are more sought after by academic libraries than discipline-specific skills in a trend that has come to be known as the 'move to the generic'.

2.3.4 Category of knowledge and skills

In a Kenyan study conducted by Kwanya, Stilwell and Underwood (2012), competencies for Kenyan research librarians were investigated. The methodology used in this study was the qualitative interpretive case study. Data was collected from 16 librarians and 162 researchers across five Kenyan institutions using individual face-to-face interviews, focus group discussions, participant observation and one half-day workshop (Kwanya, Stilwell and Underwood, 2012: 4). Content analysis, conversation analysis and Heideggarian hermeneutics was used to analyse the data (Kwanya, Stilwell and Underwood, 2012: 4). Findings indicated that there are approximately 25 research libraries in Kenya. Out of all the librarians interviewed, none have a PhD although many have registered for such a degree (Kwanya, Stilwell and Underwood, 2012: 5). There have been no publications authored or co-authored by a Kenyan librarian and most librarians do not have any strategic management experience (Kwanya, Stilwell and Underwood, 2012: 5-6). Good customer care was lacking and both researchers and librarians valued information and communications technology tools as well as online journals and research papers (Kwanya, Stilwell and

Underwood, 2012: 6). Based on these findings, Kwanya, Stilwell and Underwood (2012: 8) highlight five main competencies for Kenyan librarians, namely: technical professional, personal and interpersonal, information and communications technology, management and research (Kwanya, Stilwell and Underwood, 2012: 8-10). On reflection, researchers and librarians acknowledged the lack of basic interpersonal skills and the poor quality of customer service, proposing that steps be taken to remedy the situation (Kwanya, Stilwell and Underwood, 2012: 6). A proposal was put forward which requested that the library and information studies curriculum be revisited so as to include those aspects essential to the practitioners' world (Kwanya, Stilwell and Underwood, 2012: 6) thereby aligning curriculum with practice. The outcomes of the current study too has important implications for South African academic library practice, especially in the area of postgraduate support, as well LIS schools' curriculum review and revision.

Nonthacumjane (2011: 283), using a qualitative approach, conducted a study on the skills and competencies considered to be crucial for a new generation of LIS professionals. Content analysis was used to review literature pertaining to competencies and skills of the LIS professional working in the digital era (2011: 283). Literature from 1997 to 2010 was reviewed and the study concluded that personal skills, generic skills and discipline-specific skills were imperative for the LIS professional working in the digital era (2011: 283).

Selematsela and Du Toit (2007: 126-127), in a South African study, identified technical and non-technical groupings as the two main categories of competencies within the LIS environment. In this local study, a questionnaire was administered via email to 67 information literacy librarians across nine academic libraries within South Africa. The survey's purpose was to ascertain instruction librarians' opinions with regards to the required competencies within the field of information literacy skills instruction (Selematsela and Du Toit, 2007: 123). Findings included: that respondents required librarians to have experience in "database searching, resources in electronic formats, internet searching and computer literacy"; teaching skills, critical thought and analytical thinking were rated very important; and communication (language skills) and the ability to explain also rated very important (Selematsela and Du Toit, 2007: 123-126). Technical competencies included, for example, "knowledge and understanding of information literacy standards, basic knowledge

and understanding of subject disciplines and collaboration management" (Selematsela and Du Toit, 2007: 127). Non-technical competencies included, for example, "interpersonal skills, empathizing and supportiveness" (Selematsela and Du Toit, 2007: 127). Likewise, the current study investigated those knowledge and skills sets essential for a changing library environment but specifically in relation to the humanities librarian's support of postgraduate students.

Recent work in a South African study of LIS knowledge and skills for the digital environment by Raju (2014) concludes that a new generation of LIS professionals with a "blend of discipline-specific knowledge, generic skills and personal competencies" are required in order to navigate the changing LIS landscape (Raju, 2014: 163-165). In this study, a qualitative approach was adhered to and semi-structured interviews were conducted at two selected academic libraries within South Africa (Raju, 2014: 166). Individuals who were interviewed were selected via purposive sampling to determine the key knowledge and skills required for LIS professionals to effectively and efficiently practise in a digital era academic library in South Africa (Raju, 2014: 164). Together with semi-structured interviews, content analysis of job advertisements was conducted to ascertain key knowledge and skills which would contribute to a wider study working toward the development of a "comprehensive skills statement" for the South African higher education LIS environment (Raju, 2014: 166).

Smith, Hurd and Schmidt (2013: 15) conducted a study on the development of core competencies for library staff at the University of South Florida, USA. The core competencies were divided into ten strategic areas that would be used as performance indicators for future evaluations, namely: "job knowledge, productivity, quality of work, communication, standards of service, teamwork, initiative, problem solving, adaptability and managing people" (Smith, Hurd and Schmidt, 2013: 15). Implicit in this list are discipline-specific or professional (sometimes referred to in the literature as technical), generic and personal competencies.

Tanloet and Tuamsuk (2011: 122), using the Delphi technique, conducted a study which aimed to develop a core competency framework for Thai academic information

professionals. Three groups consisting of experts in the Library and Information Science field were surveyed using a questionnaire (Tanloet and Tuamsuk, 2011: 124). The findings presented in this study depict a picture where information professionals would need to be: flexible and adaptable to the changing LIS environment; knowledgeable of management practices, policy procedures, and consultation techniques; skilful in teaching and learning, training, information literacy, library instruction; knowledgeable with ICTs (information and communications technology) and research as well as marketing which is paramount to the success of the information professional (Tanloet and Tuamsuk, 2011: 124). These authors argue that personal attributes, knowledge and skills were the three fundamental competencies of information professionals at Thai academic libraries (Tanloet and Tuamsuk, 2011: 122 and 126).

Partridge et al. (2010: 270-271) undertook research in the Australian LIS context. The aim of the study was to investigate the necessary attributes, knowledge and skills required by the modern-day information specialist particularly in the dynamic LIS environment (Partridge et al., 2010: 265). Participants included those working in different sectors of Australian society such as the public and private sectors, academic sector, schooling sector as well and LIS education and training (Partridge et al., 2010: 266). The sampling approach was a combination of convenience sampling and purposive sampling. Data was collected via focus group discussions and 76 participants participated in the study (Partridge et al., 2010: 266). *Leximancer*, which is text mining software, was used to analyse the focus group data. Content analysis was used to identify themes and clusters from the data. Findings of the study concluded that the present-day librarian should be more concerned with having the right attitude and personality traits; applying sound library practices; re-examining actions, services, tools and needs; serving their user community, and should be less concerned with qualifications and technologies (Partridge et al., 2010: 270-271).

The American Library Association's Presidential Task Force on Library Education (2008) specifies the core competencies required by librarians working in the schooling, academic, public, special, and governmental libraries. These are broad categories within which skills sets reside. They are listed as: "foundations of the profession; information resources; organization of recorded knowledge and information; technological knowledge and skills;

reference and user services; research; continuing education and lifelong learning; and administration and management" (American Library Association Presidential Task Force on Library Education, 2008).

On reflection, research in this area is dominated by the qualitative approach and a common outcome seems to be that generic skills and personal competencies play an important role in the required knowledge and skills sets of the LIS professional. General findings conclude that a combination of discipline-specific or professional knowledge, generic skills and personal attributes are required by the LIS professional in order to navigate the technology-driven information environment efficiently and effectively.

2.3.5 Competency framework

Sewdass and Theron (2004), Selematsela and Du Toit (2007), Zauha and Potter (2009), Nonthacumjane (2011), and Tanloet and Tuamsuk (2011) all advocate for a competency framework in order to assist librarians in improving their knowledge and skills required for the ever-changing information landscape. Tanloet and Tuamsuk (2011: 123) reiterate that LIS professionals are continuously adjusting to the changing library environment. Accordingly, their role, knowledge, skills, and attributes must evolve so as to remain a current asset to the organisation and its users. Moreover, Tanloet and Tuamsuk (2011: 123) emphasise that "one of the human development tools adopted [in academic libraries] is called competency human development. Intrinsic competency denotes knowledge, ability, skills, and characteristics shown as behaviours that lead to successful operations". Similarly, this study examines the kinds of tools developed or adopted by the three university libraries to assist librarians with their adjustment to a library environment that demands varying competencies.

Literature on the concept of a competency framework has placed different emphasis on different skill-types. Some have advocated for a more technical-type knowledge and skills (for example, Choi and Rasmussen's 2009 study), others promote the 'softer' more non-technical knowledge and skills (for example, Partridge et al.'s 2010 study and Ketlhoilwe and Molatedi's 2015 study) while others advocate for a blended skills set (for example, Kwanya, Stilwell and Underwood's 2012 study as well as Raju's 2014 and 2016 studies). This study

investigates the trend at the three selected university libraries with regards to the knowledge and skills sets most valued for postgraduate support by the humanities librarian.

Soutter (2007: 2) claims that “competency essentially reframes work by deconstructing positions or jobs and rephrasing their content as components or values, most commonly as knowledge, skills and attributes or behaviours, with an eye to those that determine success". Kwanya, Stilwell and Underwood (2012: 2) concur by re-iterating that “competency indices deconstruct positions into knowledge, skills, values and attributes which determine success of the bearers”. Rothwell and Lindholm (1991) cited in Kwanya, Stilwell and Underwood (2012: 2) argue that “competency indices define requirements needed for workers to perform and meet the needs of a specific job”. Once these indices are developed, they can then be used when benchmarking, evaluating or determining educational requirements for LIS positions (Kwanya, Stilwell and Underwood, 2012: 2). Rothwell and Lindholm (1999), Soutter (2007) and Kwanya, Stilwell and Underwood (2012) all touch on the ideas of the Core Competency Theory in terms of individual level core competencies allowing for the individual to meet the required needs of the specific job (task).

New knowledge and skills are researched by Raju (2014) in a study that aims to develop a “comprehensive skills statement” for the LIS sector in the South African higher education context. Raju (2014: 16) argues that because of the changes in the ICT-driven information environment and the impact that this has had on the knowledge and skills required by LIS professionals working in the digital era, LIS professionals require new knowledge and skills to navigate this terrain. This is not to say that the traditional LIS skills (such as classification, cataloguing, reference interview, etc.) have become obsolete (Raju, 2014: 163). On the contrary, traditional LIS skills are important as they form a foundation for operating in this environment but will need to be combined and supplemented with new technological knowledge (Choi and Rasmussen, 2009: 465). Raju (2014: 165) reports on the “knowledge and skills requirements for a modern academic library in South Africa” by using two qualitative approaches. Firstly, content analysis of job advertisements was conducted using a local South Africa newspaper, the *Mail & Guardian*. Secondly, semi-structured interviews were held with librarians from two South African academic libraries. The findings of this

preliminary study were that no one specific knowledge-type, or skill-type, or personal-type attribute is required but rather a range of knowledge, skills and attributes are required to navigate the modern LIS environment (Raju, 2014: 167). At the same time, the literature, content analysis of job advertisements and interviews with librarians revealed generic skills (for example, communication, interpersonal skills, teamwork, etc.) to be a highly essential skill set (Raju, 2014: 168-167). But at the same time disciplinary-knowledge is still considered to be important to LIS employers with personal skills, while important, lagging behind generic skills and disciplinary-knowledge. Technological skills rated high in this study and this is not surprising as the LIS environment and profession moves into the digital era (Raju, 2014: 167). New skills in areas such as "scholarly communication, eResources collection development and research support librarianship" as well as "curation and research data services" are reported in this study as emerging trends in the digital academic library environment (Raju, 2014: 169). Hence a comprehensive skills statement for the South African higher education LIS sector, which this study aims to produce, together with other available competency frameworks internationally and locally, would be useful in providing LIS professionals with guidance and direction in terms of current, new and emerging knowledge and skills trends in the LIS landscape, for purposes of knowledge and skills development in the workplace.

2.3.6 e-Research

The changing technological environment that academic libraries have to contend with is a recurring theme in this study. It is because of this altering environment that services, knowledge, skills, abilities and capabilities are frequently being re-shaped and re-figured. E-Research is one such trend that has challenged the academic library information professional thereby establishing an area for further knowledge and skills acquisitions. According to Thomas (2011: 38) e-research occurs when the so-called traditional research practices develop and integrate with information and communications technologies. This process is then considered to be e-research and includes, *inter alia*, activities such as research data management and new (digital) means of scholarly communication, such as institutional repositories and other open access publishing (for example, open journal and open monograph publishing).

Thomas (2011) conducted research at the Queensland University of Technology in Australia. The aim of the study was to introduce the project, *Building eResearch Support Capabilities and Capacity*, and to understand the research needs of the Queensland University of Technology so that emerging trends such as that of e-research could be incorporated into their current library service structure (Thomas, 2011: 38). Single case study methodology was used together with online surveys and focus groups, and the findings indicated that continuous skills and knowledge development are required by research staff in supporting the e-research endeavour (Thomas, 2011: 37). Further findings showed that the majority of researchers have not prepared a data management plan, most researchers store their data on flash drives (USB sticks), DVDs and CDs which is not always reliable, and issues around data ownership and retention are misunderstood (Thomas, 2011: 41). Similarly, this study considers the extent to which e-research has challenged the LIS professional's current knowledge and skills set.

The study clearly states that Queensland University of Technology is well positioned to support e-research as it has been well funded by the Australian government thereby demonstrating their government's commitment to this critically important service (Thomas, 2011: 40). Other factors attributing to their suitability as an e-research service supporter are: "a centralized university with the disposition and readiness to succeed now; a leading institution in Creative Commons[8] Australia; a leader in the open access movement[9] with QUT e-Prints; able to leverage the valuable skills of liaison and reference librarians; and currently endorsing a draft research data management policy", to name but a few (Thomas, 2011: 40-41). The suggestion therefore for the institution to support researchers in their e-research journey is well supported by the above findings. This then leads to the observation that information professionals and research support staff would need to have the necessary knowledge and skills to support the e-research obligation at Queensland University of Technology and at other 'research intensive' institutions worldwide, including the three higher education institutions serving as research sites in the current study.

[8] Creative Commons is a non-profit organisation that has created an open licencing agreement so as to make copyrighted material available to the public to use legally (Fitzgerald and Pappalardo, 2009: 1).
[9] Very simply, the open access movement endeavours to make scientific information freely available to those in the research and public domain (Sánchez-Tarragó and Fernández-Molina, 2010: 64).

Luce (2008: 43) defines e-research as "the development of, and the support for, advanced information and computational technologies to enhance all phases of research processes" not only for the sciences but also affecting the social sciences and humanities. Luce (2008, 44-45) discusses three key roles for the academic library with regards to supporting e-research. These three roles for the academic library can also be translated into knowledge and skills required in supporting the e-research endeavour. The first key role is that of *supporting creation.* By this Luce (2008) explains that libraries and librarians should be taking part in the "early planning and data-modeling phases of eResearch" in order to safeguard the preservation, use and accessibility of the collection for present and future generations (Luce, 2008: 44). Therefore LIS professionals would require the knowledge and skills associated with these activities. The second key role is that of *connecting communities*. E-Research provides the opportunity for collaborative, multi and interdisciplinary research so that LIS professionals would be required to work in dynamic virtual spaces (Luce, 2008: 44-45). This would require staff to be proficient in working in these online e-research environments. The third key role is *curation*. To curate is the: "…persistent review of the data within the libraries' collections…this includes monitoring of new options and tools to facilitate the process as well as maintenance of the necessary skills to perform these operations" (Heidorn, 2011: 667). This role indicates that the LIS professional will be required to work with metadata[10], tend to the data, preserve it, make it available and sharable (Luce, 2008: 45-46). Luce (2008: 49), Choi and Rasmussen (2009: 465) and Raju (2014: 164) agree that traditional LIS knowledge and skills should be augmented by these new technologies, knowledge and skills. Hence it is imperative to investigate the conspectus of knowledge and skills of the humanities librarian providing postgraduate support, especially in view of the association of this role with research, and in the newer context, with e-research.

2.3.7 Research data management

As research data management develops into national and international importance, governments and organisations all over the world are establishing research data management procedures and policies (Chiware and Mathe, 2015: 1). The National Research

[10] Metadata is commonly defined as 'data about data', for example, subject terms describing data sets and other information sources.

Foundation (NRF) is an independent South African government agency mandated to support research and to facilitate knowledge creation, indigenous knowledge and innovation in science and technology (National Research Foundation, 2016).

Chiware and Mathe (2015) consider research data management services at the Cape Peninsula University of Technology (CPUT) Libraries in Cape Town, South Africa. The CPUT Libraries is in the process of "developing and integrating RDM services into institutional research workflows" including tools such as research management plans and policies opening up the way for skills development in this area (Chiware and Mathe, 2015: 1). This local study is of particular interest to the current study as it considers the role of the Cape Peninsula University of Technology Libraries and skills development for librarians, in the area of research data management.

Cape Peninsula University of Technology Libraries recognised that policy framework and policy developments were critical to research data management services as well as in defining roles and responsibilities, with particular reference to the libraries (Chiware and Mathe, 2015: 3-4). An institutional RDM Working Group was established which included key partners such as the Libraries, the Research Office, representatives of various faculties, Information and Communications Technology staff, Records and Archives, CPUT Quality Management Unit, CPUT Ethics Committee Chair, CPUT Research Chairs, CPUT Heads of Research, and the Centre for Postgraduate Studies at CPUT. The RDM Working Group's objectives were "to develop an RDM services roadmap for CPUT" (Chiware and Mathe, 2015: 4). The Libraries had also established their own internal groups namely, Policy Analysis and Development, Requirements Gathering and Gap Analysis; Technology Infrastructure; and RDM Service Development - an indication of the importance of managing researchers' data. The RDM Working Group also played a pivotal role in guiding and shaping the CPUT Research Data Management Policy (Chiware and Mathe, 2015: 4).

With these new roles and responsibilities arise new areas for knowledge and skills development. A skills development programme has been put in place at the Cape Peninsula University of Technology Libraries to assist librarians to participate in research data management (Chiware and Mathe, 2015: 8). New roles in the management and

development of e-research platforms have been established, such as an e-Research Systems Developer. This role will include the development of tools and systems for research data management services (Chiware and Mathe, 2015: 8), an indication of the importance of this new development in libraries. The skills development programme is facilitated by staff skilled in the relevant areas whether it is staff internal or external staff to the library.

Some of the areas highlighted in the skills development programme for librarians are:

- subject-specific orientation;
- understanding of institutional research processes and policies;
- knowledge of relevant tools (such as Mendeley, Scopus author management, Data Management Plan Tool, ORCID identifier);
- communication and collaboration (video, web-conferencing technologies);
- current awareness – alerts and RSS services;
- research methodologies (for example, research data lifecycle, data analysis, tools, statistics);
- bibliometrics (for example, impact factor, h-index) and altmetrics;
- intellectual property rights;
- publication processes and requirements;
- awareness of DOAG.org[11] and Sherpa Romeo[12]; and
- academic networking.

(Chiware and Mathe, 2015: 8, 9).

Capacity building in this new skills area in South Africa can be observed in the re-shaping of the curricula at universities. The University of Cape Town Library and Information Studies Centre offers a short course in Research Data Management and a Master of Philosophy (MPhil) in Digital Curation, and The University of the Witwatersrand School of Public Health offers a Master of Science in Epidemiology in Research Data Management (Kahn et al., 2014: 298; Chiware and Mathe, 2015: 9). Other capacity building activities include, for example,

[11] DOAG.org assists organisations with Oracle software and product services (Deutsche ORACLE-Anwendergruppe e.V. [DOAG]. n.d).

[12] Sherpa Romeo is service that indicates publisher copyright policies and self-archiving policies (SHERPA/RoMEO, 2016).

seminars, workshops and a conference arranged by The Network of Data and Information Curation Communities (NeDICC) (Kahn et al., 2014: 298).

Kahn et al. (2014) in their study discuss research data management in the South Africa context, focusing on librarians' views and the role of the academic library. The data for this study was collected during a one-day workshop in March 2014 hosted by the Library and Information Association of South Africa (LIASA) and the United Kingdom's Digital Curation Centre (DCC). Forty-one participants (mostly librarians) took part in the workshop and were able to respond to questions via a *clicker device.* Due to the nature of the device and technology used only multiple-choice questions were asked. Questions were presented and views collected through-out the day of the workshop only after key concepts and issues were discussed (Kahn et al., 2014: 299). Some preliminary findings included that approximately 48% of participants felt that their "understanding and confidence in supporting the concept of RDM" was average; approximately 75% expressed that they were not aware of any research data management policies or frameworks and 20% replied *yes* when asked if their institutions had a research data management policy (Kahn et al., 2014: 299-300). There were various responses to who should be responsible for creating policies and frameworks as well as who should curate research data (Kahn et al., 2014: 300). In terms of skills and resources, 24% of respondents felt that database and software skills were where the knowledge and skills gap was and respondents ranked metadata as well as "skills for finding and re-using data" as important (Kahn et al., 2014: 302). Many respondents felt that information and communications technology (ICT) departments and units should ultimately be responsible for research data management and curation (Kahn et al., 2014: 302). Scarce 'soft' skills are considered to be "guidance and support, curation skills and training, policy frameworks, curation tools and software, storage and network" (Kahn et al., 2014: 303). The authors agree that these gaps in skills and resources can be addressed through training and development programmes (Kahn et al., 2014: 304). Therefore, it is important to investigate the effect of research data management on humanities librarians' provision of postgraduate student support.

2.3.8 Summary of the literature

The literature reviewed reveals trends (locally and internationally) emerging from recent research relating to knowledge and skills requirements for LIS professionals particularly in the current digital age. For example, continuing professional development is a trend that has emerged in both South African and international literature and assists in addressing this study's Critical Question Two. Scholars agree that continuing professional development is well-supported by academic libraries worldwide (Sewdass and Theron, 2004 (South Africa); Kealy, 2009 (Australia); Maesaroh and Genoni, 2009 (Australia); Zauha and Potter, 2009 (Australia and the USA); Mathew, Baby and Pillai, 2010 (India); Blakiston, 2011 (USA); Tanloet and Tuamsuk, 2011 (Thailand); Thomas, 2011 (Australia); Isberg, 2012 (Sweden); Smith, Hurd and Schmidt, 2013 (USA); Kahn et al., 2014 (South Africa); Chiware and Mathe, 2015 (South Africa)) and benefits those embarking on continuing professional development, including humanities librarians supporting postgraduate students. In both the Indonesian context (Maesaroh and Genoni, 2009) and South African context (Coetsee and Weiner, 2013), continuing professional development can be seen as a means of supplementing a formal education system that appears to be inadequate thereby supporting LIS personnel to embark on a life-long learning journey.

Investigating the current knowledge and skills sets of librarians provides a means for setting a baseline or benchmark not only for the individual librarian (such as the humanities librarian supporting postgraduate students) but also for the academic library as a whole. Current knowledge and skills are important because if one has to plan for academic libraries in the future (this includes staffing requirements) then one needs to be aware of the current knowledge and skills situation. This is illustrated in the case of the University of Melbourne Library in Australia that underwent restructuring during 2006 and 2007 (Kealy, 2009: 573). In order to plan for the future, current knowledge and skills would need to be investigated.

Other trends from the literature include academic libraries moving towards a digital library model (Adanu, 2007; Choi and Rasmussen, 2009; Mathew, Baby and Pillai, 2010; Nonthacumjane, 2011; Smith, Hurd and Schmidt, 2013) due to the advancement of information and communications technologies. Due to this rapid change in the LIS environment new technologies have brought about a need for revised knowledge and skills

(Kealy, 2009: 573). According to Partridge et al. (2010) and Ketlhoilwe and Molatedi (2015) personal qualities are more essential than technical skills (also referred to as professional or discipline-specific skills), and generic skills are in greater demand by academic libraries than professional or discipline-specific skills (Orme, 2008; Partridge, Lee and Munro, 2010; Raju, 2014). The literature commonly distinguishes between three broad categories, namely, discipline-specific knowledge and skills, generic skills and personal attributes and that a combination of all three competency categories are required in the digital age academic library (Orme, 2008; Nonthacumjane, 2011; Tanloet and Tuamsuk, 2011; Kwanya, Stilwell and Underwood, 2013; Raju, 2014; Raju, 2016).

Scholars concur that a competency framework is required by librarians which will assist librarians in improving their current knowledge and skills sets, and prepare librarians for future requirements (Sewdass and Theron, 2004; Selematsela and Du Toit, 2007; Zauha and Potter, 2009; Nonthacumjane, 2011; and Tanloet and Tuamsuk, 2011). Furthermore, new trends emerging from the literature such as e-research and its need for research data management, has made it necessary for the LIS community (including humanities librarians supporting postgraduate students) to revisit and revise current knowledge and skills (Luce, 2008; Thomas, 2011; Kahn et al., 2014; and Chiware and Mathe, 2015) as these new trends have implications for [postgraduate] research.

These trends, emanating from this study's review of relevant literature, provide an overview of the complex nature of the evolving library and information services environment and the continuous need for librarians (including humanities librarians providing postgraduate support) to re-focus and re-skill for future needs, particularly in the technology-driven academic library context. The literature also indicates further complexities within the LIS profession relating to the diversity of knowledge and skills required for the information professional to effectively mediate the rapidly evolving digital environment. Hence, this study's presentation of a knowledge and skills framework to guide humanities librarians in meeting the needs of a changing user and information environment in the higher education context.

2.4 Chapter summary

Chapter Two discussed the role of the literature review as well as theory in research. It unpacked the Core Competency Theory and its relevance to this study. It also reviewed empirical and other literature related to concepts or themes emerging from the critical questions addressing the objective of this study as well as from the theory informing it. Chapter Three will present the research design and methodology used in this study.

CHAPTER THREE: RESEARCH DESIGN AND METHODS

3.1 Introduction

This chapter presents the research design and methods used in this study. To re-iterate, the study's objective was to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills, as well as ascertain areas for new skills acquisition.

The critical questions responding to the objective of the study attempted to elicit data relating to: the baseline knowledge and skills humanities librarians supporting postgraduate students currently possess; the support that academic libraries offer humanities librarians working with postgraduate students, in terms of their own professional development; essential knowledge and skills required by humanities librarians to be effective in the postgraduate support that they provide in the current digital age; tools and resources required by humanities librarians in order to support postgraduate students; and, the role of the parent organisation in assisting humanities librarians in the role of postgraduate support.

3.2 Research paradigm

The paradigm or philosophical worldview best suited for this study was the constructivist paradigm. The term paradigm or worldview refers to "a model or framework for observation and understanding, which shapes both what we see and how we understand it" (Babbie and Mouton, 2001: 645). Bazeley (2013: 19) extends this definition by stating that a paradigm "provides a basis for understanding the nature of reality (the world we live in), and provides guidance on how that reality can be known or understood (*ontology* and *epistemology*, respectively)". Authors including Creswell (2014: 8) and Punch (2014: 17) claim that the constructivist paradigm is, more often than not, associated with the qualitative approach to research. Constructivism is defined by Guba and Lincoln (1994) cited in Punch (2014: 17) as "…realities [that] are local, specific and constructed; they are socially and experientially based, and depend on the individuals or groups holding them".

Therefore, the constructivist view of social reality relies on the research participants' views and understanding of the context under investigation (Creswell, 2014: 8). The constructivist paradigm was appropriate for this study as its research was pre-dominantly qualitative and the constructivist paradigm allowed the research participants to share their own views and stories thereby revealing their own sense-making and permitting them to construct their own meaning and understanding of an event or experience holistically (Bazeley, 2013: 19). More specifically, the constructivist paradigm allowed the interviewed librarians and postgraduate student respondents the space and freedom to share their views with regards to the knowledge and skills they believe humanities librarians require in supporting postgraduate students.

3.3 Research design

Creswell (2014: 3) discusses three approaches to social research, namely, the quantitative, qualitative and mixed methods approaches.

The quantitative approach focuses on the "logic of the natural sciences" (Babbie and Mouton, 2001: 21). Its roots lie in the belief that the world is governed by natural laws where "truth is assumed to be absolute and independent of human beings that search for it" (Babbie, 2013: 15) so that thoughts, emotions, opinions and beliefs of individuals are excluded from scientific study. This approach focuses heavily on the analyses of statistics (numbers, amounts and quantities) in order to conclude findings and is regarded as an objective and neutral approach (Bless, Higson-Smith and Sithole, 2013: 16) which is linked to the natural sciences. Quantitative methodology therefore relies on the measuring of variables or the counting of occurrences of the phenomena under study. In terms of the objective of the study, the quantitative approach is less suited to the study as it does not allow for the individual experiences of study participants in terms of their own understanding, belief, views or opinions regarding a particular event or context.

Creswell (2014: 3) explains that a research study is not only qualitative or quantitative but rather "a study tends to be more qualitative or quantitative or vice versa". The mixed methods approach is therefore an approach that has both qualitative and quantitative elements, hence the name (Creswell, 2014: 3).

The qualitative approach is an approach related to the human sciences focusing on the study of individuals, communities and society; attempting to understand and describe rather than explain people and human behaviour (as done in quantitative research) by adopting an insider's view (Babbie and Mouton, 2001: 28 and 53). The qualitative approach attempts to interpret social reality in specific contexts which are dynamic and ever-changing and attempts to study people in their "natural context…it does not aim at generalizing the results to the population, but aspires towards some aspects of the new knowledge and understanding being transferable to other units of the population" (Bless, Higson-Smith and Sithole (2013: 162). Bless, Higson-Smith and Sithole (2013: 15) continue to explain that this knowledge and understanding is "constructed by human beings" so that making sense of the world includes one's own assumptions and beliefs (thus referring to the constructivist paradigm). Therefore the qualitative approach has two aspects. Firstly, it attempts to study the phenomenon in its natural context and secondly, it studies the phenomenon in its entirety (complex, multi-layered and multi-dimensional) (Leedy and Ormond, 2010: 135). Qualitative methodology therefore emphasises meanings and experiences related to the phenomena under study. This study lent itself to a qualitative approach as it sought to understand and explain phenomena in relation to its context and therefore only the qualitative approach was considered due to its relevance to the study.

In adopting a qualitative approach, multiple case study design was used to investigate the knowledge and skills requirements for the humanities librarian in supporting postgraduate students. Case study methodology is a detailed study of a particular situation (or situations) and therefore "the case study aims to understand the case in depth, and in its natural setting, recognizing its complexity and its context" (Punch, 2014: 120). The three selected higher education institutions in the Western Cape with their associated academic libraries were used as research sites for the empirical part of the study and were studied in some detail.

In multiple case studies the cases have a common denominator or are similar in one way or another (Stake, 2006: 1). In this instance, all three cases are higher education institutions that have humanities librarians who support postgraduate students. As Stake explains (2006: 1-2) "a case is a noun, a thing, an entity….a specific entity" and should not be

confused with an activity or a functioning. When studying a case, one comes across the opportunity to observe the activity and functioning, "but functioning is not the case" (Stake, 2006: 2). Gerring (2007: 20) defines case study as that which "may be understood as the intensive study of a single case where the purpose of that study is – at least in part – to shed light on a larger class of cases (a population). Case study research may incorporate several cases, that is, multiple case studies". Taking the qualitative approach into consideration, the case study should be understood in its particular context and situation. Stake (2006: 2) continues by explaining that "the situation is expected to shape the activity, as well as the experiencing and the interpretation of the activity. In choosing a case, we almost always choose to study its situation". The individual cases, namely, Stellenbosch University, the University of Cape Town and the University of the Western Cape are in themselves separate meaningful cases, sharing commonalities (Stake, 2006; 4). However, in this study they are reported on as a collective.

Yin defines the case study as "an empirical study that investigates a contemporary phenomenon 'case' in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (Yin, 2014: 16). Case study, as a methodology, has been criticised as not being rigorous enough, and Yin (2014: 19-20) attributes this to too few methodological texts illustrating its credibility, dependability, internal and external validity and reliability, to name but a few. The second point of contention is that many times case study research is confused with case studies that are used for teaching purposes. The main difference between the two is that case studies in teaching may be changed in some way so as to demonstrate a particular point whereas with case study methodology all evidence must be reported on ethically without altering any information or data (Yin, 2014: 20). Thirdly, case study research has been accused of not being able to generalise from case study findings - Yin (2014: 20) reports that this statement is not only true of case study methodology but also true of other methodologies such as single experiments and that:

> …case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In a sense, the case study, like the experiment, does not represent a "sample", and in doing case study research,

> your goal will be to expand and generalize theories (analytical generalizations) and not to extrapolate probabilities (statistical generalizations)…
>
> (Yin, 2014: 21)

This allows for theory to be developed for wider applicability (Maxwell and Mittapalli, 2008: 878). Fourthly, case study research has been labelled as a method that may take too long to conduct and may yield too much information to a point that it may become unmanageable (Yin, 2014: 21). This statement may be true for case studies conducted in the past but future case studies can yield high quality, in-depth data over the telephone or internet (Yin, 2014: 20) and over a relatively shorter period of time. Lastly, when compared to other methods such as randomised controlled trials, case study research presents a comparative advantage that is unclear. Randomised controlled trials became more popular and case study research became under-valued and over-looked. However, many scholars have since noted that case study research is able to effectively address certain issues explaining the "how" and "why" of a particular situation. Some benefits of adopting this design are that case studies can now be viewed "as adjuncts to experiments rather than as alternatives to them" (Cook and Payne, 2002 cited in Yin, 2014: 22). Additionally, case study research has the ability to complement other methods of research (Yin, 2014: 22).

In light of the above, notwithstanding its criticisms, a case study design was considered appropriate for this research as it offered a valuable way of looking at a very contemporary issue - that of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students at the three selected universities. Insights were achieved that perhaps would not have been had a different design been used. Case study design allowed for the use a variety of data sources which in this specific instance was semi-structured interviews with librarians and focus group discussions and interviews with postgraduate students.

3.4 Research methods

Research methods are meant to include identification of the study population, sampling techniques, data collection instruments, data analysis techniques and data interpretation.

3.4.1 Study population

According to Bless, Higson-Smith and Sithole (2013: 161-162) the study population is the total number of objects or people that form part of the research study. For the purposes of this study, the study population included all Humanities, Arts and Social Science faculty librarians who support postgraduate students at the three selected universities in the Western Cape as well as all postgraduate students in these faculties registered at these three universities.

3.4.2 Study sample

The study sample is simply defined as a subset of the study population (Bless, Higson-Smith and Sithole, 2013: 162). To restate, the purpose of qualitative research is to investigate a specific phenomenon in detail, aiming to understand and explain that phenomenon in its natural context. It is for this reason that non-probability sampling is commonly used in qualitative research. Non-probability sampling is defined as "sampling techniques where the probability of each element of the population being included in the sample is not known" (Bless, Higson-Smith and Sithole, 2013: 393). Non-probability sampling includes convenience or availability sampling, purposive or judgmental sampling, quota sampling and cluster sampling (Bless, Higson-Smith and Sithole, 2013: 166-167).

For the purposes of this study, purposive sampling was used to determine the subset for the postgraduate students and was also used to select humanities librarians supporting postgraduate students from each of the three academic libraries. Purposive sampling was selected as it is one of the more flexible sampling procedures and lends itself towards qualitative research (Bless, Higson-Smith and Sithole, 2013: 165-166). Purposive sampling is defined as "a type of nonprobability sampling in which the units to be observed are selected on the basis of the researcher's judgment about which ones will be the most useful or representative" (Babbie, 2013: 128). For the purposes of this study, the researcher (a practising humanities librarian) was knowledgeable about which participants would be most useful from among humanities librarians supporting postgraduate students and from among postgraduate students in the humanities faculties across the three universities participating in the study.

The original intention of this study was to conduct two focus group discussions among postgraduate at each of the three selected universities and each focus group would have consisted of between five to ten participants. Bless, Higson-Smith and Sithole (2013: 215) assert that a focus group should consist of six to ten participants; Babbie (2014: 349) claims that five to fifteen participants are sufficient while Liamputtong (2011: 3) states that six to eight participants are adequate. The choice of five to ten participants seemed a useful middle-ground to adopt based on relevant literature. However, due to the aforementioned protest action at the University of the Western Cape (discussed in Section 1.8.1 of Chapter One), focus group discussions only took place at Stellenbosch University and at the University of Cape Town (see Table 3.1). The researcher was confident that the study could secure adequate participation of postgraduate students from the remaining two universities to make up for circumstances affecting data collection that were beyond the researcher's control.

Using purposive sampling, it was planned that one focus group would consist of masters students while the other group would include PhD students, at each of the three selected universities. Again, due to the protest action that swept the country at the end of 2015 and the time of year of data collection (delayed to January 2016, which is the beginning of the new academic year, because of the national student protests), the researcher was unable to arrange two focus groups at Stellenbosch University that would include masters students separately from PhD students with a minimum number of six participants per group. The researcher worked very closely with the Stellenbosch University Library staff to arrange these meetings and exhausted all possible options. In consultation with the researcher's supervisor, a decision was taken that, in the interest of completion of the study, masters and/or humanities PhD students from Stellenbosch University who were available (either for a one-on-one or smaller focus group discussions) would be included in the study.

In the end, the focus groups discussions which are referred to as focus group discussions/interviews consisted of a mixture of PhD and masters students. Despite the deviation from the plan (due to unforeseen circumstances), data collection was nevertheless rich and valuable, and did not impact negatively on the research. Table 3.1 illustrates the composition of the focus group discussion/interviews.

Table 3.1: Study sample of postgraduate students across the three selected universities in the Western Cape

Group	Postgraduate students
1	8 PhD students
2	5 masters students
3	1 PhD and 1 masters student
4	1 masters student
5	2 PhD and 2 masters students
Total	**20**

The decision not to include honours and postgraduate diploma students is discussed in Section 1.8.2 (Delimitations of the study). However, it is appropriate to emphasise here that in the interest of richer extraction of data it was deemed useful to opt for more senior and more homogenous groupings of postgraduate students in the purposive selection for the focus groups. In focus group discussions, data extraction is dependent upon conversations and interactions among the participants (Liamputtong, 2011: 31-32). Hence it would be somewhat difficult to moderate engagement with a mixed group of postgraduates, that is, honours and masters students together. Further, the researcher's experience as a humanities librarian providing postgraduate support also indicated that masters and PhD students form the core clientele of such librarians engaging in knowledge and skills areas trending in the literature.

Semi-structured interviews were conducted across the three selected universities and the humanities librarians at these universities were purposively sampled, as indicated earlier. Three humanities librarians each, supporting postgraduate students from Stellenbosch University and the University of Cape Town were selected while two such librarians from the University of the Western Cape were selected (see Table 3.2). Interviews with eight such librarians were deemed sufficient to elicit data required to address the objective of this study.

Table 3.2: Study sample of humanities librarians and postgraduate students across the three selected universities in the Western Cape

	Masters students	PhD students	Humanities librarians
Stellenbosch University	4	3	3
University of Cape Town	5	8	3
University of the Western Cape	-	-	2
Totals	**9**	**11**	**8**

3.4.3 Data collection

Data for this study was collected by conducting semi-structured interviews with purposively selected humanities librarians and conducting focus group discussions or interviews with purposively selected postgraduate students. The interviews and focus group discussions strove to elicit data relating to issues such as current knowledge and skills of the humanities librarians; support structures offered to the humanities librarians by the parent organisation; and, information needs and requirements of the humanities postgraduate students.

3.4.3.1 Semi-structured interviews

Interviews are a popular data collection instrument in qualitative research as it is useful in understanding the experiences of others (Punch, 2014: 144; Morris, 2015: 1). Interviews are defined as "a data-collection encounter in which one person (an interviewer) asks questions of another (a respondent). Interviews may be conducted face-to-face or by telephone" (Babbie, 2013: 250) and may vary in length. This can be due to the interviewer's skill at generating a conversation or due to the complexity of the interviewee's comments (Morris, 2015: 4). The semi-structured interviews conducted for the purposes of this study were not so much a question and answer session but more a discussion around the seven issues outlined in the semi-structured interview schedule for humanities librarians (see Appendix A). Jones (1985) cited in Punch (2014: 144) aptly states that:

> …in order to understand other persons' constructions of reality, we would do well to ask them…and to ask them in such a way that they can tell us in their terms (rather than those imposed rigidly and a priori by ourselves) and in a depth which addresses the rich context that is the substance of their meanings.

This statement captures one of the main reasons the researcher posits that semi-structured interviews were appropriate for this study. The semi-structured interviews with the humanities librarians at the three selected universities were informal in nature in order to encourage conversation yet still abiding by interview protocol.

Another reason that the researcher believed that the semi-structured interview method was appropriate for this study was that this type of interview does not follow a structured schedule. Rather, it gives the interviewer space to expand on issues that the participant has mentioned and, as such, an opportunity is created for clarification, expansion and explanation (Morris, 2015: 3) providing rich in-depth data. It is also the strength of the instrument. For example, Raju (2014), also researching knowledge and skills of LIS professionals, conducted semi-structured interviews at two selected academic libraries in South Africa. Raju (2014: 166-167) comments that the semi-structured interview gave the researcher the flexibility to be able to probe further "in an attempt to enhance the richness of the data collected" thereby confirming two things. Firstly, the data is rich and has depth and secondly, that semi-structured interviews provide the researcher with the opportunity for additional clarification and explanation. Another example is that of Kwanya, Stilwell and Underwood (2013) who conducted individual face-to-face interviews (among other data collection techniques) with 16 librarians from Kenyan research institutions. The findings and discussion stemming from the Kwanya, Stilwell and Underwood (2013) study indicated rich data extraction. Many times during the semi-structured interviews with the librarians in the current study, the researcher experienced, first hand, how the interview was not bound by a structured agenda and this allowed the librarian interviewee to have the space to discuss what he/she found relevant. This semi-structured nature of the interview allowed the librarians to construct their own meaning and make sense of their own experiences relating to postgraduate student support.

An additional strength of semi-structured interviews is that this data collection method "gives the researcher access to [the] interviewees' thoughts, reflections, motives, experiences, memories, understandings, interpretations and perceptions of the topic under consideration" (Morris, 2015: 5). In essence, it assists the researcher in understanding why and how people construct meaning. This idea of constructing meaning (making sense of the

world and one's own experiences, assumptions and beliefs as well as understanding social reality) is directly related to the constructivist paradigm, qualitative research approach, multiple case study design, semi-structured interviews and focus group discussions/interviews – all of which were adopted in this study.

One weakness mentioned by Bless, Higson-Smith and Sithole (2013: 198) is that if the interviewer is not competent then this could lead to biases being introduced; for example, when the interviewer records the comments of the participant by taking sparse notes and misinterpreting what the participant had said. To minimise this problem, the interviews were audio recorded, with permission from the participants as stated in the *Informed Consent Form* (see Appendix C), so that the interviewer was always able to refer back to the actual conversation and compare that with the notes taken in order to minimise bias. A second weakness of semi-structured interviews is that in some instances there could be participants who would not fully engage or would not give a true account of the issue under discussion. To minimise this, the researcher attempted to make the participants feel safe and comfortable by re-iterating the ethical obligations of the researcher. In view of the rich data which emerged from the interviews the researcher can only assume that participants were engaged and spoke freely without any concern of being compromised.

The semi-structured interview schedule for humanities librarians (see Appendix A) included a brief introduction to the study as well as the title and objective of the study. The participants were aware of the assurance of confidentiality as well as having the freedom to be able to withdraw at any stage of the interview. There were seven questions (points or issues) for discussion relating to the knowledge and skills requirements for the humanities librarian in supporting postgraduate students. All seven questions were open-ended which meant that the participants could provide their own opinions based on their experience as humanities librarians supporting postgraduate students. The selection of these seven questions was informed by the critical questions guiding the study, the theory informing it, and the literature reviewed for the study.

3.4.3.2 Focus group discussions or interviews

A focus group discussion is defined as "a semi-structured group interview conducted by a skilled facilitator" (Bless, Higson-Smith and Sithole, 2013: 392). There are two types of focus group discussions. The first is a structured approach found normally in the market research field where participants' interaction with each other is minimal but the interaction with the facilitator is quite extensive as the facilitator asks very specific questions and looks for very specific answers (Liamputtong, 2011: 2). The second type of focus group discussion, which this study employed, is a less structured approach that allowed and encouraged participants "to talk to each other instead of answering the moderator's [facilitator's] questions. Hence, the moderator's [facilitator's] primary aim [is] to facilitate discussion, rather than to direct it" (Liamputtong, 2011: 3). For the purposes of this study, the term facilitator was used instead of moderator. The number of participants in the focus group discussions/interviews ranged from one participant to eight participants, for reasons already explained. The researcher reflects that the larger the group the more lively the discussion. At the same time, the researcher had to exercise more control in directing the group so that each participant had an opportunity to offer his/her opinion.

Punch (2014: 146) as well as Liamputtong (2011: 3) state that a focus group discussion is also known as a "focus group interview", "group interview" or "group depth interview". For the purposes of this study, the term focus group discussions was used. Focus group discussion as a data collection instrument was relevant to this study as it complemented the constructivist paradigm in that this qualitative data gathering instrument aims to understand research participants' meanings and interpretations, and allows for knowledge to be socially constructed (Liamputtong, 2011: 3).

An advantage of focus group methodology is that the entire group is able to discuss a particular issue with each other thus sharing ideas and views leading to further discussion regarding the issue (Bless, Higson-Smith and Sithole, 2013: 200). The opposite is also true – participants may disagree or have differing views to each other which, hopefully, will be shared and discussed (Bless, Higson-Smith and Sithole, 2013: 200). During the focus group discussions the researcher was mindful of encouraging the respondents (in a non-intrusive way) to respond to each other thereby creating a discussion environment and not a

question-and-answer situation. The researcher noticed that the students were engaged and participated very naturally. The reason for this was (and this emerged during the focus group discussions or interviews) that many of the students had, at one time or another, participated in focus groups discussions and/or interviews; or they themselves, as researchers, had conducted focus group discussions and/or interviews.

Another advantage is that focus group discussions may provide an opportunity for participants and facilitator to learn from each other thereby fleshing out ideas and views (Bless, Higson-Smith and Sithole, 2013: 201). The researcher experienced this *fleshing out of ideas* when the postgraduate student respondents began discussing the notion of the humanities librarian as subject expert or as having a broad working knowledge of a subject. The discussion went back and forth which lead to in-depth data collection. In addition to this, focus group discussions by nature allow participants to express their own views and opinions about a particular topic so that they may "seek their own needs and concerns in their own words and on their own terms" (Liamputtong, 2011: 5). The focus group allows for group discussion so that the facilitator is privy to a more natural form of communication so that the facilitator may "enter the world of the participants which other research methods may not be able to do" (Liamputtong, 2011: 5). These advantages speaks well to the constructivist approach which, to reiterate, relies on participants' views, opinions, beliefs and understanding of the context under investigation (Creswell, 2014: 8). Focus group discussions therefore provide the ideal space - a communal space for learning and sharing to take place where participants are able to construct their own meaning of shared events and experiences.

One of the major disadvantages of focus group discussions cited by Bless, Higson-Smith and Sithole (2013: 201) is when the facilitator lacks the ability and skillfulness in facilitating the group. The facilitator is responsible for creating an environment where participants feel safe enough to share their views, each participant has an equal chance of expressing his or her view, no one participant is dominant and monopolises the discussion, the facilitator is able to encourage those participants who are less vocal and who may take some time before expressing their views (Bless, Higson-Smith and Sithole, 2013: 201). Liamputtong (2011: 80-81) concurs that some participants are so dominant that it may influence the group

discussion in a negative way by labelling themselves experts on the subject being discussed, speaking over other participants or controlling the conversation. In the study, the facilitator tried to be as aware as possible of the different personality types (from those who dominate to those who are shy and introverted) so that the situation could be monitored and facilitated as a whole (Liamputtong, 2011: 81). Another disadvantage of focus group discussions is that not all subjects are suitable to focus group discussion especially when the nature of the subject is controversial, sensitive or private such as abortion, illness or abuse, to name but a few (Liamputtong, 2011: 8) – this, however, did not apply to this particular study.

A focus group discussion information sheet and checklist (see Appendix B), used in this study, included a brief introduction to the study, the title, objective of the study as well as four issues that were used to guide the discussion during the session. The selection of these issues, again, was informed by the critical questions guiding the study, the theory supporting it and the literature reviewed for the study. The participants were assured of confidentiality as well as having the freedom to be able to withdraw at any stage of the focus group discussion or interview. Participants were encouraged to voice their own views on the topic even if it contradicted that of others.

3.4.3.3 Conducting the interviews and focus group discussions

The humanities librarians were purposively selected from the three selected institutions - the researcher is a humanities librarian herself and so colleagues from the three selected institutions' libraries were selected to be interviewed on the basis of her knowledge of these colleagues and the work that they do. These colleagues were then asked to make contact with humanities postgraduate students at their institutions for participation in focus group discussions. Appointments were made at the convenience of the humanities librarians at the three universities and with the postgraduate students at the two universities. Ethical clearance, based on the original clearance for the research from the University of Cape Town, was requested from the three selected universities and each participant completed an *Informed Consent Form* (see Appendices C and D). Once ethical clearance and permission had been granted by each of the three institutions, interviews and focus group discussions were able to take place between December 2015 and March 2016.

Delays to data collection due to unforeseen circumstances and necessary adjustments made have been outlined in Section 3.4.2 of this chapter. The interviews with humanities librarians lasted between 15 minutes and 60 minutes. Focus group discussions or interviews with postgraduate students lasted, on average, 60 minutes. There was one instance where a postgraduate student was interviewed one-on-one. This interview lasted 28 minutes. Data collection ended on Wednesday 2 March 2016.

3.4.3.4 Pre-testing the data collection instruments

A pre-test was conducted using a University of Cape Town librarian to pre-test the semi-structured interview schedule. A group of six University of Cape Town Library and Information Studies masters students were used to pre-test the focus group discussion information sheet and check list. Both pre-tests were conducted in December 2015 and both lasted approximately 50 minutes. Ethical protocols were adhered to and consent forms were completed by the voluntary pre-test individual/group.

With regards to the interview sessions and the focus group discussions, attention was paid to how easily a question (point or issue) was raised or presented and if rephrasing was necessary. Reflecting on the pre-test sessions, it was necessary to rephrase some of the questions (points or issues) to make it more conversational so as to encourage debate (Krueger and Casey, 2009: 60). Once a question (point or issue) was raised the researcher paid particular attention to whether the pre-test respondents were somehow confused by the question (Krueger and Casey, 2009: 60) or if it was ambiguous in any way. This was not the case, as reported by the pre-test respondents, but in some instances respondents asked for clarification or for an example. This did not necessarily mean that the respondents were confused or that they found the question ambiguous, but perhaps required an explanation especially when some pre-test respondents had commented that they were a bit nervous and therefore an explanation or an example gave them some time to think and reflect. It was important for the researcher to be familiar with the questions (points or issues) as this assisted with minimising awkwardness and increasing the opportunity for discussion to flow naturally (Babbie, 2013: 346). Pre-testing the data collection instruments also contributes validity to the study.

3.4.4 Data analysis

Bless, Higson-Smith and Sithole (2013: 21) state that the analysis of data begins once the data has been collected, organised and checked. The researcher analysed the data using *NVivo 11 Pro* which is a qualitative analysis software programme, as well as thematic content analysis (done by the researcher). Content analysis is defined as "an approach to qualitative analysis which focuses on the themes or topics addressed by a respondent" (Bless, Higson-Smith and Sithole: 2013: 390) as well as a method used when analysing recorded human communications (Babbie, 2013: 295; Bless, Higson-Smith and Sithole: 2013: 352). According to Braun and Clarke, 2006: 79) thematic analysis "is a method for identifying analysing and reporting patterns or themes within data". Responses from both the interviews and focus group discussions were analysed using *NVivo Pro 11* and thematic content analysis.

The researcher prepared the transcripts which were then imported into *NVivo 11 Pro* to code the data into themes (also known as nodes). For the purposes of this study, the content was analysed according to the themes that presented themselves during the interview sessions and focus group discussions/interviews. Once all the data were coded into nodes using *NVivo Pro 11*, the coded raw data was exported into *Microsoft Excel* so that the researcher could analyse the raw data. The researcher then filtered (reduced) the raw data into more specific themes together with connections, nuances and comments made by the respondents. Once this was completed, graphs and tables were created so as to illustrate the data in a graphical manner. The researcher believed that *NVivo Pro 11* was ideal for the coding of the data but relied on her own analytical ability to complete the thematic content analysis. The latter 'by hand' analysis allowed for finer connections and nuances in the collected data to be captured, which otherwise would have been lost in the use of analysis by software application only.

Reviewing the abundance of literature related to the subject of the study (knowledge and skills of LIS professionals) also allowed the researcher to extract 'data' in the form of knowledge and skills sets from the literature to compare with and validate data extracted by empirical means (semi-structured interviews with humanities librarians and focus group discussions or interviews with postgraduate students) for this study.

3.5 Reliability and validity

Meaningful definitions of reliability and validity in terms of qualitative research differ from quantitative meanings and definitions (Creswell, 2014: 201). This section focuses on meaningful definitions related to qualitative reliability and qualitative validity.

3.5.1 Reliability

Punch (2014: 237) writes that "reliability…basically means consistency". However, in terms of a qualitative study, "[the term] dependability is proposed to parallel reliability in the constructivist paradigm" (Lincoln and Guba, 1985 cited in Punch, 2014: 321). Yin (2014: 48) explains reliability to be the actions of a researcher following the same procedures as a previous researcher so that he/she may reach the same findings and conclusions. To ensure reliability (dependability), the researcher coded the data as accurately as possible. The data collection instruments were pre-tested so as to ensure that they were appropriately designed for the objective of the study.

3.5.2 Validity

Qualitative validity according to Gibbs (2007) cited in Creswell (2014: 201) "means that the researcher checks for the accuracy of the findings by employing certain procedures". Validity refers to the instruments of measurement and whether these instruments have measured the concepts the researcher had intended to (Babbie and Mouton, 2001: 122 and Leedy and Ormrod, 2010: 28). This study attempted to ensure validity by using more than one method and instrument when collecting data (triangulation) to ensure that the researcher had measured the concepts she has intended to (based on the critical questions guiding the study). The results and finding from each method were analysed and compared so as to increase validity (Wisker, 2008: 231). Pre-testing the data collection instruments also contributed to validity.

3.5.2.1 Triangulation

Triangulation occurs when different research methods are used to test the same finding (Babbie, 2013: 117). This study employed the *methodological triangulation* method which involves data collection using different methods (Bless, Higson-Smith and Sithole, 2013: 238). For the purposes of this study, data was collected using interviews and focus group

discussions or interviews. In this way, triangulation looked after validity issues of this study as it enabled comparison of data collected from interviews with librarians with data collected from focus group discussions or interviews with postgraduate students. Triangulation was extended by the extraction of 'data' from the literature reviewed in the form of knowledge and skills sets of LIS professionals, allowing the study to compare, validate and verify the data collected via empirical means (semi-structured interviews with humanities librarians and focus group discussions or interviews with postgraduate students) with 'data' extracted from the literature. This in turn strengthened the validity of the study.

3.6 Ethical considerations

Research ethics guides the research process and the term **ethics** refers to "moral principles" and **ethical** refers to "of or relating to moral principles" (Oxford English Dictionary Online, 2015). According to Punch (2014: 36) "ethics is the study of what are good, right, or virtuous courses of action". The ethics of social research can be described as "general agreements among researchers about what is proper and improper in the conduct of scientific inquiry" (Babbie and Mouton, 2001: 520). Ethical consideration and conduct should span throughout the entire research process from the writing of the proposal to the designing of instruments to the collecting of data to the writing up of the dissertation and subsequent journal article publications.

3.6.1 Voluntary participation

Participation in the proposed research was voluntary and all participants were informed of this. Individuals were also informed that they had the right to refuse participation in the study and that they could withdraw from the study at any stage. The *Informed Consent Forms* (see Appendices C and D) reiterated the assurance of confidentiality and the participants received a copy of the form for their own records. Questions asked in interviews and issues raised in the focus group discussions/interviews were designed so as not to have any deleterious effects on the respondents.

3.6.2 Anonymity and confidentiality

Anonymity and confidentially are two techniques which assist the researcher in the protection of the participants' interests, well-being and identity (Babbie, 2013: 35).

3.6.2.1 Anonymity

Guaranteeing anonymity is ensuring that the identity of the research respondents remains unknown and that the data they have provided cannot be associated with the particular research respondent (Bless, Higson-Smith and Sithole, 2013: 33). In addition to this, Babbie (2013: 35) states that anonymity is also "when the researcher – not just the people who read about the research – cannot identify a given response with a given respondent". While this is not practically possible in the case of interviews and focus group discussions, participants were assured anonymity to the extent that they were anonymously named Participant A, B, C, etc. during the data collection, data analysis and writing up stage. While the descriptions given of the three institutions are quite detailed, the reporting of data was anonymised.

3.6.2.2 Confidentiality

Confidentiality is defined by Babbie (2013: 36) when "a research project guarantees **confidentiality** when the researcher can identify a given person's responses but essentially promises not to do so publicly". Confidentiality differs from anonymity in that the researcher is aware of the respondents' responses. This happens, for example, in an interview session or focus group discussion. Interviews and focus group discussions in this study were dealt with confidentially by removing all identifying information and replacing it with Participant A, B, C, etc.

Moreover, the data collected, analysed and reported on was dealt with in the most respectful and confidential manner, and was used for research purposes only. The data collecting instruments (interview schedule and focus group discussion information sheet) were closely scrutinised by the researcher and supervisor so as to ensure that the questions and discussion points posed would not harm the participants in any way. *Informed Consent Forms* were completed by each participant and permission was requested and received from the participating institutions, that is, the University of Cape Town, Stellenbosch University and the University of the Western Cape, to use these universities as research sites.

3.7 Chapter summary

This chapter presented the study's research paradigm putting forward a case for the selection of the constructivist paradigm. It discussed the research design, and research methods including the study population, its sample size and the type of sampling adopted. Data collection instruments were explained and data analysis methods discussed. Aspects of reliability and validity were articulated and ethical issues, such as voluntary participation and confidentiality, were considered.

The next chapter, Four, presents the findings from the analysis of data collected from the purposively selected humanities librarians and postgraduate students as well as from the 'data' extracted from the literature reviewed, for triangulation purposes.

CHAPTER FOUR: PRESENTATION OF FINDINGS

4.1 Introduction

The purpose of this study was to investigate the knowledge and skills requirements for the humanities librarian in supporting postgraduate students. This chapter presents the findings of the study. To restate, the study's objective was to develop a knowledge and skills framework for humanities librarians who support postgraduate students so that such librarians may 'measure' their current knowledge and skills and, identify areas for new skills acquisition. To re-iterate, the critical questions guiding the study were:

- What knowledge and skills do humanities librarians supporting postgraduate students currently possess?
- How are academic libraries currently supporting and assisting the professional development of their humanities librarians working with postgraduate students?
- What are the necessary knowledge and skills that humanities librarians require in order for them to effectively provide support to postgraduate students in the current digital age?
- What tools and resources are required by the humanities librarians in order to support postgraduate students?
- What role does the parent organisation play in preparing humanities librarians for postgraduate student support?

The Core Competency Theory informed the study and was instructive in the generation of the critical questions guiding the study which sought to ascertain the knowledge and skills of humanities librarians supporting postgraduate students. These knowledge and skills are units of competency which reside with the individual humanities librarians yet also form part of the institutional level core competencies. Core competencies are viewed as the accumulated knowledge, skills, and capabilities allowing for an institution to remain competitive and agile (Selznick, 1957). Hence Core Competency Theory, which informed the study's critical questions, was also maintained in the analysis of data collected as well in the presentation of findings in this chapter which is organised according to the critical questions generated for the study. Empirical data for the study was collected by conducting semi-

structured interviews with humanities librarians (see Appendix A) from the three selected universities, namely, Stellenbosch University, University of Cape Town and the University of the Western Cape. Focus group discussions (see Appendix B), or as explained in Section 3.4.2 of Chapter Three, one-on-one or smaller group interviews, were conducted with masters and PhD humanities students at two of the selected universities, namely, Stellenbosch University and the University of Cape Town. The reason for non-participation by the University of the Western Cape in terms of their humanities students has been discussed in Section 1.8.1 of Chapter One. Figure 4.1 captures the distribution of librarians, masters students and PhD students who participated in this qualitative study.

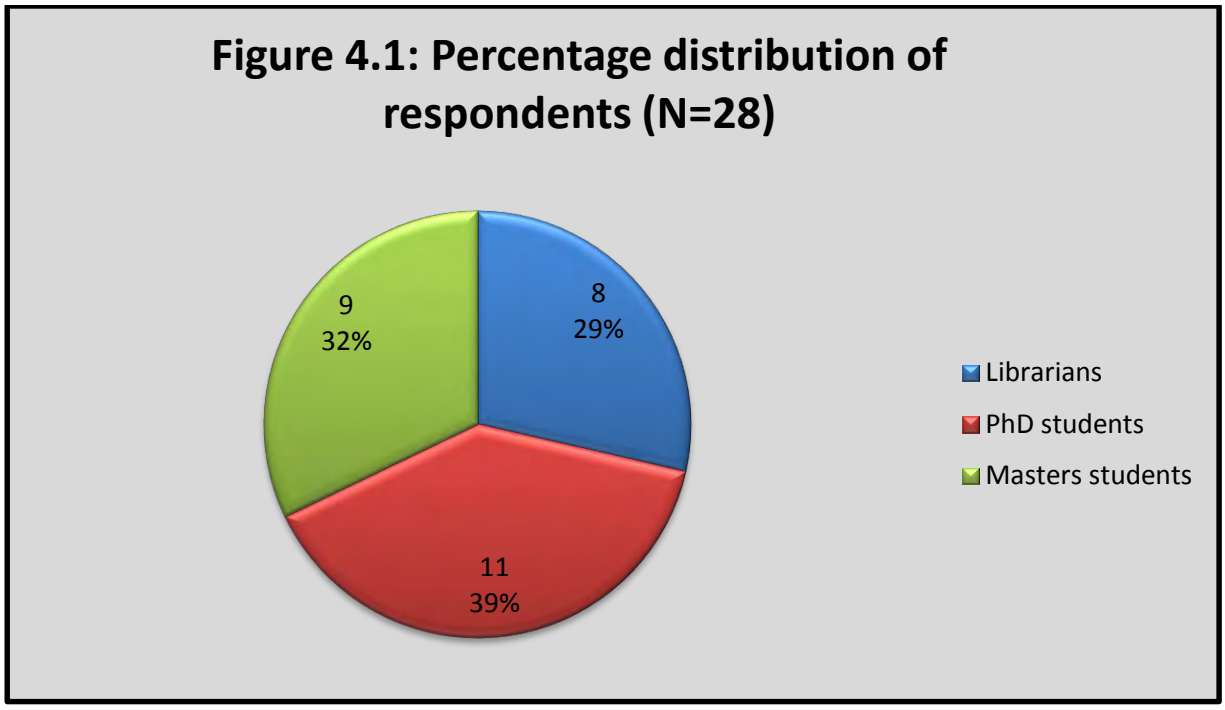
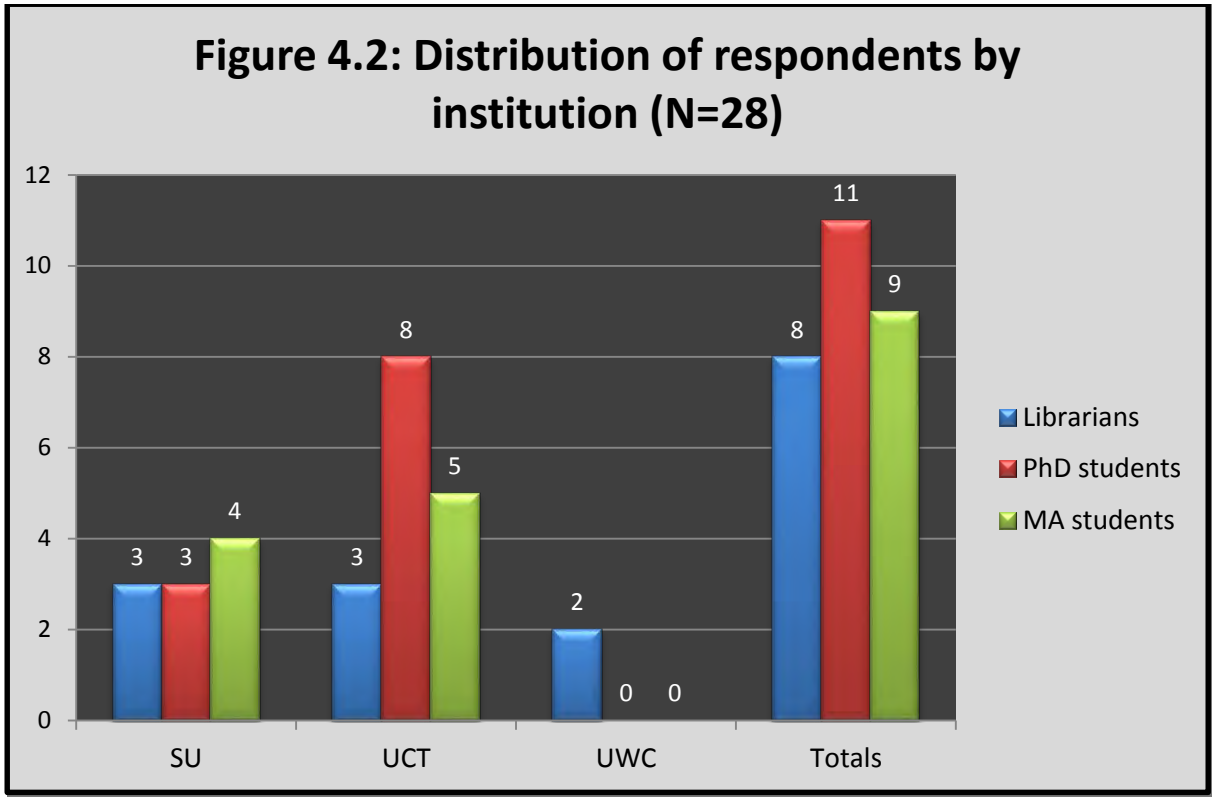


Figure 4.2 displays the number of humanities librarians, PhD students and masters students from each institution as well as the total in numbers (see Section 3.4.2 of Chapter Three for reasons for the size of groups). The smallness of numbers in this graph (Figure 4.2) does not warrant the presentation of percentages.



NVivo 11 Pro was used to code the data from the interviews and focus group discussions into nodes (themes). Thematic content analysis was used by the researcher for analysis of data collected from respondents. Once the data was coded into nodes the researcher used her own analytical ability, aided by *Microsoft Excel* for capturing and descriptive analysis purposes, to analyse the content. For the purposes of this study, the researcher made a decision to use *NVivo 11 Pro* for the coding portion of the analysis as *NVivo 11 Pro* proved useful for this purpose. The actual thematic content analysis was done by the researcher as she believed that certain nuances of the qualitative data would have been lost had *NVivo 11 Pro* been used throughout. Furthermore, the relatively small size of data in question did not warrant total processing by computer software application. It was manageable 'by hand' and also allowed the researcher to get close and familiar with her data for analysis purposes.

4.2 Presentation of findings

The findings of this study are presented according to the critical questions generated for the study and which was informed by the Core Competency Theory. In presenting the findings the researcher triangulates, where relevant, findings from the two main sources for empirical data, that is, purposively selected librarians and postgraduate students as well as findings from the literature which also presented useful data for this study. Findings are presented in the form of tables and graphs, where applicable, as well as in the form of narratives, as this is a qualitative study.

4.2.1 What knowledge and skills do humanities librarians supporting postgraduate students currently possess?

This critical question attempted to address the area of current knowledge and skills of humanities librarians supporting postgraduate students. In terms of the Core Competency Theory, knowledge and skills are components of competency and Lahti (1999: 65) explains that individual core competencies are those competencies that belong to the individual. The individual then exhibits these competencies within the organisation and therefore it is important to consider the individual as an active agent in the enhancement of the performance and competitiveness of an organisation (Tanloet and Tuamsuk, 2011: 123-125). This is applicable to the academic library as an organisation offering postgraduate support, among other resources and services.

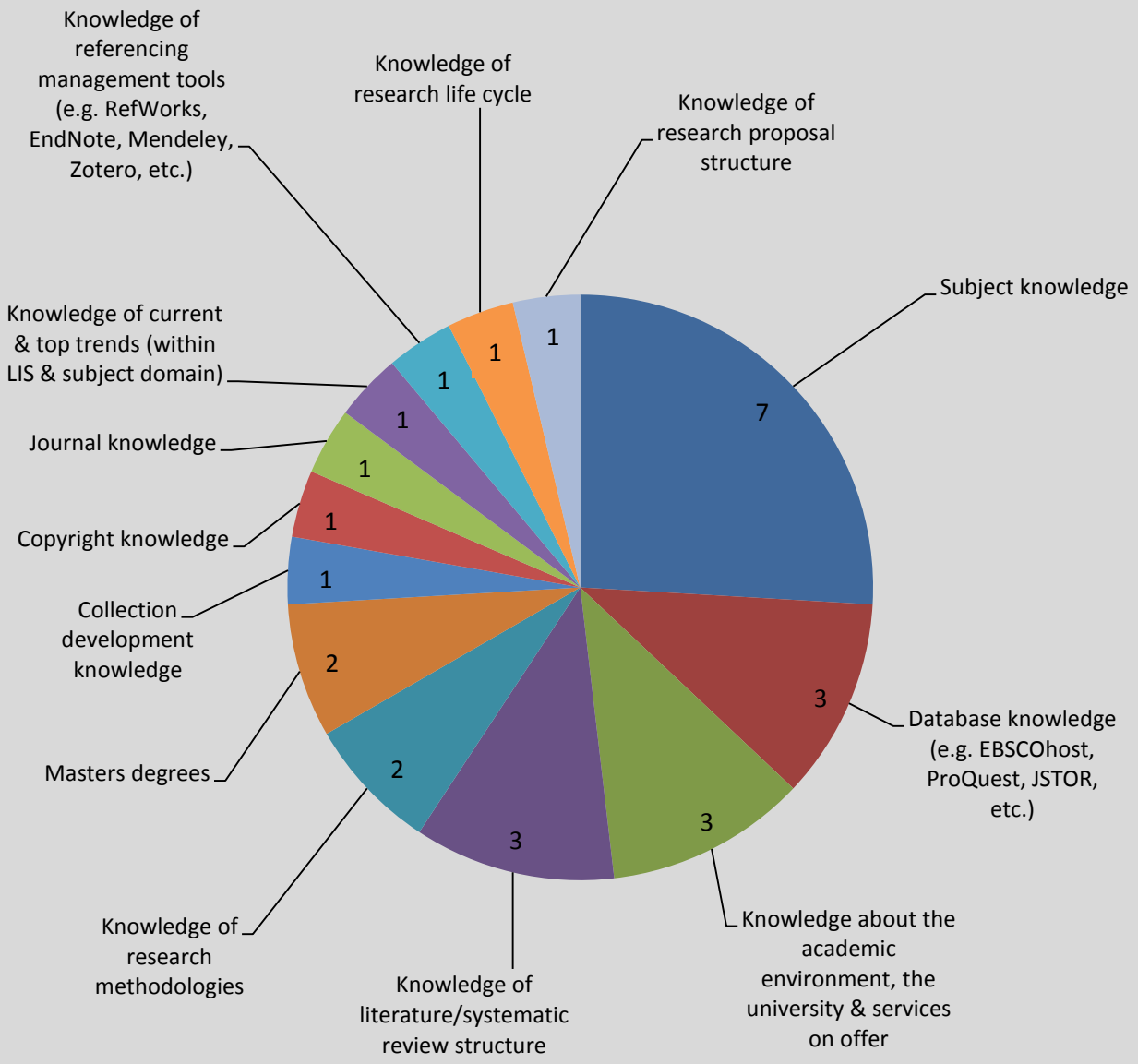
The data responding to this critical question were derived from semi-structured interviews (see Appendix A) held with humanities librarians from Stellenbosch University, the University of Cape Town and the University of the Western Cape. Eight librarians, purposively selected from the three institutions, were asked to reflect on their own experiences as humanities librarians supporting postgraduate research and their familiarity with the work of other humanities librarians supporting postgraduate research. A discussion took place with regards to two questions. The first question was: “What knowledge (that is, what one should know or what understanding one should have) do humanities librarians supporting postgraduate students, currently possess?” (see Appendix A). The second question posed was: “What skills (that is, what one should be able to do) do humanities librarians supporting postgraduate students, currently possess? (see Appendix A). These two

questions sought to uncover the current knowledge and skills that humanities librarians supporting postgraduate students currently possess.

4.2.1.1 Current knowledge

The librarians mentioned various knowledge that humanities librarians currently possess in order to support postgraduate students. Many categories of knowledge emerged from the semi-structured interviews with the eight humanities librarians across the three selected universities in the Western Cape. Figure 4.3 illustrates categories of knowledge identified. The number indicated within each segment of the pie chart specifies the number of librarians who mentioned that particular knowledge. The size of the portion indicates the relative importance. The arrangement, clockwise, is from the highest scoring knowledge categories to the lowest scoring.

Figure 4.3: Humanities librarians' current knowledge for postgraduate support (N=8)



4.2.1.1.1 Subject knowledge – librarian views

Seven out of the eight librarians interviewed commented that some degree of subject knowledge was part of the knowledge they believed humanities librarians currently possess in order to support postgraduate students. In total, 21 comments were made by seven of the librarians with regards to subject knowledge. These comments may be divided into two main categories. The first category is the notion of not having to be an expert in each

subject but rather to have a working or broad knowledge of the subject (six librarians made a similar statement), for example, “You might not be the expert in the content but a sensible conversation with the academic or researcher [is necessary]…” and, “…subject librarians cannot have the knowledge of a professor but an entry level, a gateway level…the major names [in the field], the major movements in the field, the major history of the field, developments in the field…” - indicating that subject expertise in each subject is not necessary but rather an understanding of the discipline and the subject matter is essential.

The second category is the view that subject expertise is essential (one librarian supported this notion). He/She claimed that subject expertise in a particular field was essential due to the nature and specificity of that particular library and felt that subject knowledge and expertise was more important than professional library knowledge. The assumption may then be made that there are certain humanities subjects that require deep subject knowledge of the discipline. This assumption may be seen in the comments made by the librarian: “When a senior librarian post was advertised the requirement was for the best candidate to have a [particular subject] degree and [the] library component would be taught on-the-job….” and, “A [particular] university was the first to ensure that [a particular] position required a [particular] degree in the first instance, [the] library degree was optional” - indicating that subject knowledge in that particular field was mandatory.

The findings indicate a leaning towards the first category, that is, a working knowledge of the subject is needed and not expert knowledge.

4.2.1.1.2 Subject knowledge – postgraduate student views

The theme of subject knowledge came through quite naturally during the interview sessions with the librarians as well as in some focus group discussions or interviews with postgraduate students. In the case of the latter, this was sparked by the question on whether librarians have a role to play in supporting postgraduate research (see Appendix B). Out of the 20 postgraduate students who participated in the focus group discussions or interviews, seven commented on whether they believed that having a librarian who was an expert in their field of study was important to them. The seven postgraduate students who commented on the notion of subject knowledge expertise had a deep sense of

understanding that it was their own responsibility to be the experts in their field. There were definite and clear comments which indicated that librarians were required to have a broad knowledge of the subject and that it was the student's and supervisor's responsibility in terms of the content of the subject, for example:

> "Sometimes I wonder if our expectations are unrealistic…I think especially as doctoral students we are trying to push new boundaries or trying to create new knowledge or make new connections and so if that is what we are trying to do…. there is a part of me that wonders how can we expect our librarian to already know what those connections might be when the point of our work is to discover…to make those connections…and we are still trying to figure out…so if that is the case then what can we realistically expect of the librarian….a librarian looking after four or five disciplines….and each of those disciplines have sub-fields…".

Other comments were, "To be fair, you don't expect your librarian to know your topic in your subject area…that is what your supervisor is for…you expect your librarian to know all these other things…that's how I would see the difference…" and, "…it is not deep subject knowledge but it is that ability to look at things conceptually from a different angle …that is something that stands out for me…" – this demonstrates the student's sense of responsibility with regard to carrying the subject expertise.

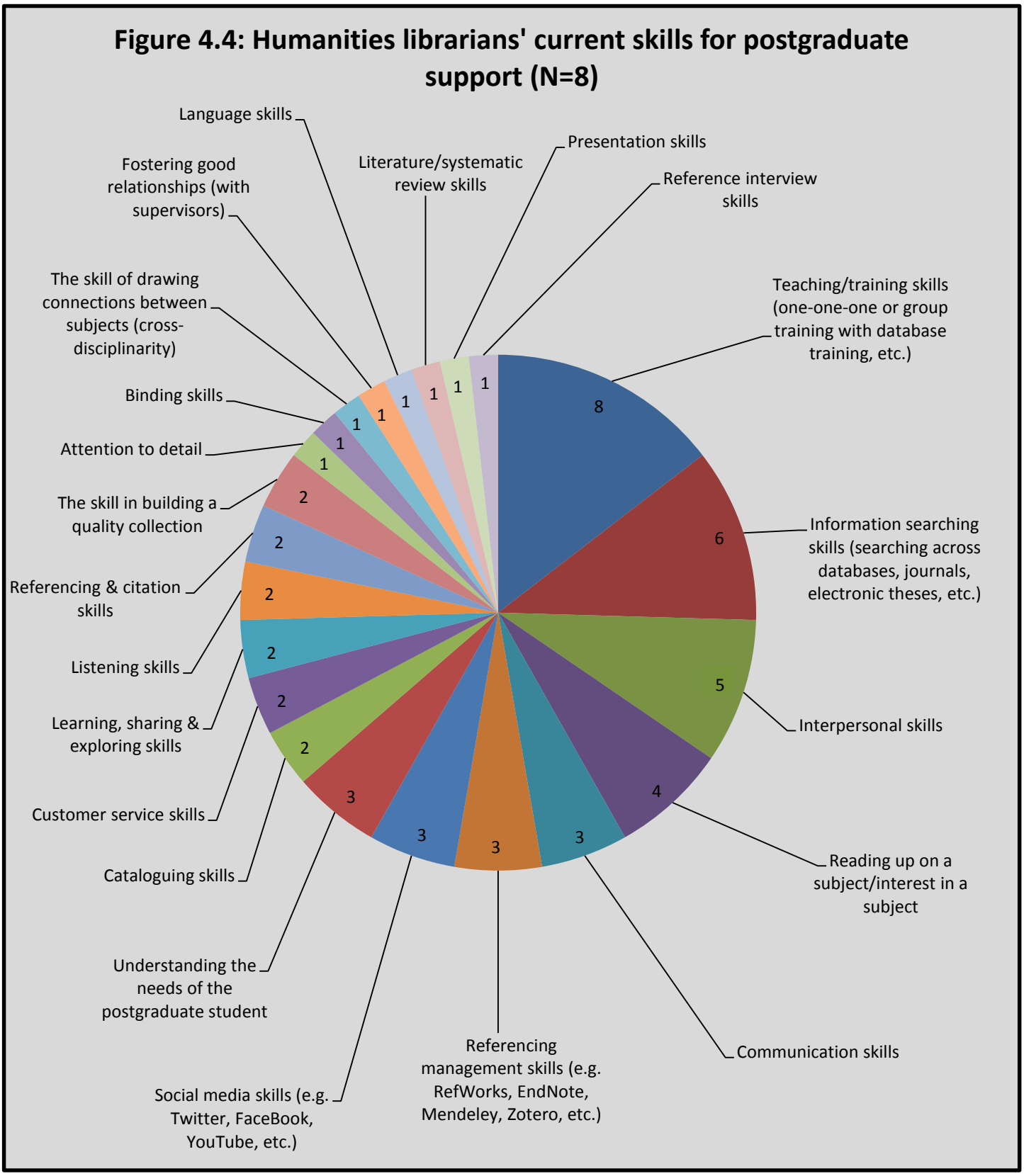
It is evident that the students see the responsibility of subject expertise as residing with postgraduate students and their supervisors and not with the librarians.

4.2.1.2 Current skills

The eight librarian respondents were asked to reflect on their own experiences as humanities librarians supporting postgraduate research and their familiarity with the work of other humanities librarians supporting postgraduate research, and respond to the question: "What skills (that is, what one should be able to do) do humanities librarians supporting postgraduate students, currently possess? (see Appendix A). The librarians mentioned several skills. Figure 4.4 illustrates the skills identified as being currently possessed by humanities librarians in their support of postgraduate students. The number

indicated within each segment of the pie chart specifies the number of librarians who mentioned that particular skill. Again, the arrangement, clockwise, is from the highest scoring skills categories to the lowest scoring.

Figure 4.4: Humanities librarians' current skills for postgraduate support (N=8)



4.2.1.2.1 Teaching/training skills

All of the eight librarians interviewed commented that teaching/training skills were required for librarians supporting postgraduate students. Some comments made were:

> "…teaching skills …we are not teachers but we need to have an understanding of the pedagogy but not to mistake our role [as librarians] for that of a teacher…although we are teaching and sharing…[perhaps] instructors?...sharing…having those conversations in a big group…".

Other comments made were: "…how to teach and to show people how to use the resources…" and, "…[we] offer online training, one-on-one training, special training…database training…" and, "…training abilities…that is a huge part of our job…" – indicating the importance that librarians place on teaching/training skills.

4.2.1.2.2 Information searching skills

Six out of the eight librarians interviewed commented that information searching skills were required for librarians supporting postgraduate students. Some comments made were: "…finding information is right at the top…and going to the relevant sources to find that information… where to find the information and to properly guide the student to where that relevant information is…" and, "…in terms of the searches, you would need to help them [the postgraduate students] come up with search terms and that often involves some understanding of the subject…" as well as, "…helping to design search terms and logical search constructions…structured searches" - indicating the importance of information searching skills.

4.2.2 How are academic libraries currently supporting and assisting the professional development of their humanities librarians working with postgraduate students?

This critical question sought to ascertain how academic libraries support and assist librarians with their professional development, particularly in light of the knowledge and skills mentioned by the librarians in response to Critical Question One. The source of data for responding to Critical Question Two was the literature reviewed in Chapter Two as well as the interviews conducted with humanities librarians purposively sampled from Stellenbosch University, the University of Cape Town and the University of the Western Cape.

Three elements of the Core Competency Theory were mentioned in Section 2.2.1 of Chapter Two. These elements are technology (such as the ever-changing digital environment that the academic library finds itself having to contend with), governance (such as institutional support by both the academic library and the parent organisation) and collective learning (such as professional development) (Prahalad, 1993: 45). The collective learning element of the Core Competency Theory allows for the enhancement of, not only the acquisition of individual core competencies, but also for the organisational level core competencies via the activity of professional development. Hence, the need for academic libraries to support professional development activities so as to increase learning opportunities among librarians and thereby extending the prospects for new skills acquisition.

4.2.2.1 Professional development support and assistance by academic libraries, as reflected in the literature

When reviewing literature relating to continuing professional development, it is clear that this activity is well-supported at higher education institutions worldwide (Sewdass and Theron, 2004 (South Africa); Kealy, 2009 (Australia); Maesaroh and Genoni, 2009 (Australia); Zauha and Potter, 2009 (Australia and the USA); Mathew, Baby and Pillai, 2010 (India); Blakiston, 2011 (USA); Tanloet and Tuamsuk, 2011 (Thailand); Thomas, 2011 (Australia); Isberg, 2012 (Sweden); Smith, Hurd and Schmidt, 2013 (USA); Kahn et al., 2014 (South Africa); Chiware and Mathe, 2015 (South Africa)). Table 4.1 presents data sourced from the literature with regards to continuing professional development and examples of how academic libraries are currently supporting and assisting the professional development of their librarians. Continuing professional development activities identified in the literature are not targeted specifically at humanities librarians working with postgraduate students but rather they are activities available to all academic librarians. One can presume then that the category of humanities librarians working with postgraduate students would be included in this collective of academic librarians.

Table 4.1: Professional development support, as reflected in the literature

Examples of support	Kealy (2009) AU	Maesaroh & Genoni (2009) AU	Zauha & Potter (2009) AU & USA	Mathew, Baby & Pillai (2010) India	Blakiston (2011) USA	Thomas (2011) AU	Smith, Hurd & Schmidt (2013) USA	Kahn et al. (2014) SA	Chiware & Mathe (2015) SA	%
Training programmes	✓	✓	✓	✓	✓	✓	✓			78%
Annual/online conferences		✓		✓	✓					33%
Workshops		✓		✓					✓	33%
Formal education	✓							✓		22%
Resources dedicated to learning (funding, time, venue, etc.)	✓				✓					22%
Academic dept seminar sessions					✓					11%
Discipline-specific learning					✓					11%
e-Learning					✓					11%
Incentives offered for attending continuing professional development sessions					✓					11%
Informal learning/sharing					✓					11%
Refresher courses				✓						11%
Special skills development plan									✓	11%
Staff development initiatives			✓							11%
Web management & design learning opportunities					✓					11%
Working groups									✓	11%

Training programmes seem to be the most popular forms of supporting professional development of librarians – a significant 78% of relevant literature reflected this. Conferences (including annual as well as online conferences) and Workshops were a relatively distant second at 33% each, with Formal education and Resources dedicated to learning, each following with the third highest percentage of 22%.

4.2.2.2 Librarians' views on professional development and assistance by academic libraries

During the semi-structured interviews with librarians, this question was posed: "In view of the knowledge and skills sets you have just mentioned, how is your academic library currently supporting and assisting your professional development in these areas?" (see Appendix A). There was an overwhelming response by the interviewed librarians that they felt encouraged by their academic libraries to embark on professional development. Some positive remarks included that the librarians felt supported and encouraged to attend academic classes within the librarians' subject responsibility, and conferences, talks and colloquiums in their subject domains as well as within the professional discipline of Library and Information Science. Table 4.2 summarises the types of professional development activities supported by the three academic libraries used as case studies in this research.

Table 4.2: Professional development activities supported by academic libraries participating in the study (N=8)

Professional development activities	No. of librarians
Training programmes	8
Peer-to-peer learning	4
Conference attendance	3
Academic seminar series	2
Webinar participation	2
Academic class participation/visits	1
Workshop participation	1

Findings from the literature as well as findings from the eight interviewed librarians indicate that training programmes are the most supported professional development activity by academic libraries for continuing professional development of their librarians. Presumably, this also applies to humanities librarians working with postgraduate students.

Some areas, reported by librarians interviewed, where academic libraries could improve their support related to issues such as:

- lack of cataloguing training;
- lack of general support from management;
- lack of information and communications technology (ICT) support;
- staff demotivated due to lack of formal qualification;
- South Africa not having [academic] tenure-ship agreement[13] and therefore publishing is a challenge;
- lack of subject knowledge support; and,
- having too many subjects to look after as a librarian.

4.2.2.2.1 Self-directed learning

During the semi-structured interviews with the eight librarians, the librarians discussed different aspects of professional development. They reported on instances of more formalised kinds of development activities such as webinars, workshops, conferences, etc. The librarians also observed a less formalised practice of professional development which is the notion of taking control of one's own development, that is, the idea that professional development was dependent on the librarian's attitude towards his or her own sense of self-development often leading into self-directed learning activities and enhancing the ability to become self-sufficient and self-taught.

Of the eight librarians interviewed, all remarked that at some time or another during their careers as librarians, they embarked on some form of self-directed learning activity. Comments on self-directed learning maybe associated with a sense of duty and responsibility towards the profession of Librarianship, one's institution and postgraduate students whom librarians work with. This is reflected in the comments captured in Table 4.3, and is a strong indication of the significant role being played by this social construct in the professional development of academic librarians generally, and of humanities librarians supporting postgraduate students, specifically.

[13] Tenure is the right granted to an individual to hold a position, in this instance, within an academic department at a university. There are many benefits to tenure-ship one of which is being able to apply for sabbatical leave in order to conduct research and publish academic papers (Fox, 2007: 545).

Table 4.3: Librarians' comments on self-direct learning

"…me taking responsibility…".
"…me having a personal investment in doing what I do…".
"…self-directed learning…in charge…can't wait around for someone to say go on this training…".
"...it is something that you develop through curiosity and interest and reading over years so there is no short-cut…".
"Development has to be self-directed".
"All real learning is in fact self-learnt".
"...we can be taught things up to a certain point…to benefit the teaching you have to take ownership and take your learning further…".
"…sense of duty...so I read up on subjects and subject changes…".
"I learn something new every day".
"…but it is your choice to go…you must also develop yourself…".
"Take the opportunity to develop yourself".
"…me as librarian deciding to attend those sessions and colloquiums…".
"Must be eager to learn".

4.2.2.2.2 Peer-to-peer learning

Another significant sub-theme to emerge from the discussions around professional development was that of peer-to-peer learning. Five of the eight librarians interviewed remarked that peer-to-peer learning and support among colleagues were standard practice. As one interviewee commented, "The best training is the one done on the job with

colleagues and is very informal...a case of the invisible college of librarians" - a reference to communities of practice. This is captured in the comments in Table 4.4.

Table 4.4: Peer-to-peer learning among librarians

"…can always speak and ask colleagues who are experts, learn on the job…".
"The best training is the one done on the job with colleagues and is very informal… a case of the invisible college of librarians…there is a technical term for it….communities of practice…areas of professional competence…".
"If you don't know then ask a colleague".
"Personality of the individual is a factor in this…we think differently as we are individuals…and because of this we have different interests…and different ways of making sense of those interests and that is why a group of librarians together is a very very powerful force because we know different things and we approach them in different ways and being able to leverage that combined knowledge is quite something...it is also something that is taken for granted in libraries…".
"...also meet as librarians to assist each other, work as a team, teamwork, can go to a colleague to assistance…this is encouraged…".
"Complement each other and work well together…".
"...will ask colleagues for assistance…".

4.2.3 What are the necessary knowledge and skills that humanities librarians require in order for them to effectively provide support to postgraduate students in the current digital age?

This critical question was generated to gain an understanding of the knowledge and skills humanities librarians require in order to effectively provide support to postgraduate students in the current digital age. In Section 1.6.5 of Chapter One, knowledge (understanding of) and skills (ability to do) were defined and acknowledged to be elements that constitute competency.

As highlighted in Section 4.2.1 of Chapter Four, and in the theoretical support for this study (see Section 2.2.1 of Chapter 2), core competencies may belong to both the individual as individual level core competencies or to the organisation as organisational level core competencies (Lahti, 1999: 61). These competencies (whether individual or organisational) are able to enrich the performance and competitiveness of an organisation (Tanloet and Tuamsuk, 2011: 123-125), and hence the need for such competencies in an academic library to enhance, in the case of this study, support for postgraduate students by humanities librarians.

Data addressing Critical Question Three were sourced from the relevant literature reviewed for this study (Chapter Two), from semi-structured interviews held with purposively selected librarians from across the three selected institutions and from focus group discussions or interviews with postgraduate students.

4.2.3.1 Required knowledge, as reflected in the literature

Again, while the literature may not specifically refer to the knowledge required for humanities librarians' support of postgraduate students, it is assumed that this specific category of LIS professional work is included in the observations of knowledge required in digital age academic libraries. The same principle applies to skills required and which are discussed in the ensuing sections of this chapter. After data reduction from information gleaned from relevant literature, 30 categories of professional or what is also referred to as discipline-specific knowledge emerged. Table 4.5 captures these categories.

Table 4.5: Professional/discipline-specific knowledge, as reflected in the literature

Professional/discipline specific knowledge	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Knowledge of research data management & services (e.g. policies, frameworks, metadata creation & preservation, etc.)	✓					✓			✓	✓	✓		42%
Knowledge of metadata & metadata standards (e.g. RDA, AACR2, LCSH, MARC21, etc.)	✓	✓		✓				✓					33%
Knowledge of collection development (including e-resources)				✓				✓		✓			25%
Knowledge of technology associated with LIS applications in the digital era							✓	✓		✓			25%
Knowledge of LIS industry & LIS client/user needs			✓	✓	✓								25%
Foundation of professional knowledge					✓						✓		17%
Knowledge of information & knowledge management (understanding the principals of how information is organised & retrieved to the meet the needs of users)			✓		✓								17%
Knowledge of information resources					✓							✓	17%
Knowledge of intellectual property & copyright issues						✓					✓		17%
Knowledge of library systems							✓	✓					17%
Knowledge of research processes & policies											✓	✓	17%
Knowledge of abstracting & indexing								✓					8%
Knowledge of cataloguing & classification								✓					8%

Table 4.5 (cont)

Professional/discipline specific knowledge	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Knowledge of content management systems				✓									8%
Knowledge of curation of digitised content (including metadata creation & management)										✓			8%
Knowledge of database development & database management systems				✓									8%
Knowledge of digital archiving & preservation				✓									8%
Knowledge of digital repository software (e.g. Dspace, etc.)								✓					8%
Knowledge of digitisation (creating digital content)										✓			8%
Knowledge of electronic resources								✓					8%
Knowledge of open source publishing platforms											✓		8%
Knowledge of publication processes & requirements											✓		8%
Knowledge of relevant tools (e.g. Mendeley, Scopus author management, Data Management Planning Tool, etc.)											✓		8%
Knowledge of research & user studies					✓								8%
Knowledge of research support librarianship										✓			8%
Knowledge of scholarly communication										✓			8%
Knowledge of traditional LIS resources, services & functions										✓			8%
Open access knowledge											✓		8%
Subject knowledge (e.g. humanities, science, etc.)											✓		8%
Subject knowledge with professional LIS skills										✓			8%

It is not surprising that LIS discipline-specific knowledge relating to research data management and services, metadata and e-resources collection development feature high up in the frequency and percentage counts in Table 4.5. These are commonly recognized academic library trends in the current digital age.

4.2.3.2 Required skills, as reflected in the literature

In this section, discipline-specific skills; generic skills and personal attributes are presented in Tables 4.6, 4.7 and 4.8 respectively. It is common in the literature (Orme, 2008; Nonthacumjane, 2011; Tanloet and Tuamsuk, 2011; Raju, 2014; Raju, 2016) to find LIS workplace skills divided into these categories.

Table 4.6: Professional/discipline-specific skills, as reflected in the literature

Professional/discipline specific skills	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Research data management skills (e.g. appraisal of data, preservation, curation, sharing, re-use, policy development, etc.)	✓			✓			✓	✓	✓		50%
Metadata skills (e.g. assigning metadata, classification numbers, subject headings, terms to describe research data, etc.)	✓					✓		✓			30%
Ability to use LIS technologies & tools to deliver effective library services			✓					✓			20%
Research methodology skills					✓				✓		20%
Abstracting & indexing skills						✓					10%
Academic publishing skills					✓						10%
Altmetric skills									✓		10%
Bibliometrics skills (e.g. h-index, impact factor, etc.)									✓		10%

Table 4.6 (cont.)

Professional/discipline specific skills	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Cataloguing & classification skills						✓					10%
Digital repository software skills (e.g. Dspace, etc.)						✓					10%
Digitisation skills		✓									10%
Electronic resources skills						✓					10%
Librarian skills with other expertise (e.g. IT, education, etc.)			✓								10%
Library systems skills						✓					10%
Reference interview skills										✓	10%
Relevant qualification (LIS related degree or other degree)						✓					10%
Research collaboration tools (e.g. EVO, etc.)				✓							10%

And yet again (as with LIS related knowledge – Table 4.5), the literature reflects in this LIS related skills list (Table 4.6), RDM and metadata skills high up in the frequency and percentage counts.

Table 4.7: Generic skills, as reflected in the literature

Generic skills	Selematsela & Du Toit (2007) SA	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Smith, Hurd & Schmidt (2013) USA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Kethoilwe & Molatedi (2015) Botswana	%
Communication skills	✓			✓	✓	✓		✓	✓	✓		✓	✓	✓	71%
General ICT skills			✓			✓	✓	✓	✓		✓	✓		✓	57%
Teamwork skills	✓				✓	✓			✓	✓		✓		✓	50%
Customer service skills				✓		✓		✓	✓	✓		✓			43%
Management/supervisory skills						✓		✓	✓			✓		✓	36%
Teaching, training & coaching skills	✓					✓			✓			✓		✓	36%
Analytical & critical thinking skills	✓				✓	✓						✓			29%
Interpersonal skills	✓			✓				✓				✓			29%
Leadership skills				✓	✓	✓						✓			29%
Marketing skills				✓		✓		✓				✓			29%
Problem solving skills					✓	✓				✓		✓			29%
Research skills								✓	✓			✓		✓	29%
Collaborative skills				✓			✓						✓		21%
Conflict management/resolution skills	✓											✓		✓	21%
Creative/innovative thinking skills		✓	✓		✓										21%
Language skills	✓					✓								✓	21%
Social media skills								✓				✓		✓	21%
Strategic thinking/management/planning skills	✓							✓				✓			21%

Table 4.7 (cont.)

Generic skills	Selematsela & Du Toit (2007) SA	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Smith, Hurd & Schmidt (2013) USA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Ability to deal with diverse user groups	✓				✓										14%
Change management skills				✓					✓						14%
Data collection & analysis skills (e.g. statistical, qualitative, etc.)		✓					✓								14%
Information literacy skills					✓							✓			14%
Information resource management skills						✓		✓							14%
Networking skills								✓					✓		14%
Organising & planning skills	✓					✓									14%
People management skills									✓	✓					14%
Project management skills				✓								✓			14%
Time management skills	✓								✓						14%
Writing skills									✓			✓			14%
Ability to read & evaluate trends in new & emerging technologies & apply knowledge to meet the needs of users				✓											7%
Ability to work with a variety of stakeholders				✓											7%
Accuracy & attention to detail skills												✓			7%
Administrative skills									✓						7%
Budgeting skills												✓			7%
Conceptual thinking skills						✓									7%

Table 4.7 (cont.)

Generic skills	Selematsela & Du Toit (2007) SA	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Smith, Hurd & Schmidt (2013) USA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Decision-making skills						✓									7%
Evaluation skills												✓			7%
Facilitating skills	✓														7%
Liaison skills				✓											7%
Listening skills														✓	7%
Negotiation skills	✓														7%
Online searching skills														✓	7%
Online survey tools skills (e.g. Key Survey, etc.)							✓								7%
Performance management skills												✓			7%
Presentation skills														✓	7%
Scholarly communication skills							✓								7%
Software & hardware troubleshooting skills														✓	7%
Stress management skills														✓	7%

Communication skills seem to be the most required generic skill with 71% of the relevant literature reflecting this. General ICT skills received 57% and Teamwork skills received 50% whilst Customer service skills received 43% and Management/supervisory skills and Teaching, training and coaching received 36% each.

Table 4.8: Personal attributes, as reflected in the literature

Personal attributes	Selematsela & Du Toit (2007) SA	Partridge et al. (2010) AU	Nonthacumjane (2011) Thailand	Tanloet & Tuamsuk (2011) Thailand	Ocholla & Shongwe (2013) SA	Smith, Hurd & Schmidt (2013) USA	Raju (2014; 2016) SA	Ketlhoilwe & Molatedi (2015) Botswana	%
Flexible/adaptable	✓	✓	✓	✓		✓	✓	✓	87.5%
Willingness to continue learning	✓	✓		✓			✓		50%
Self-motivation			✓	✓			✓		37.5%
Ability to responds to others' needs			✓				✓		25%
Ability to work independently	✓						✓		25%
Approachability	✓							✓	25%
Confidence (to be confident & to inspire confidence)	✓				✓				25%
Enthusiastic			✓				✓		25%
Initiative						✓	✓		25%
Morals & ethics			✓	✓					25%
Ability to explain	✓								12.5%
Ability to work under pressure							✓		12.5%
Accountability				✓					12.5%
Credibility					✓				12.5%
Diplomacy					✓				12.5%
Fostering change							✓		12.5%
Honesty/Integrity					✓				12.5%
Open minded		✓							12.5%
Outgoing personality	✓								12.5%
Reflective thinking							✓		12.5%
Risk taker who is comfortable with experimenting & able to handle rejection		✓							12.5%
Service attitude				✓					12.5%
Social responsibility attitude			✓						12.5%

It is not surprising that in the current digital age driven by rapidly evolving technology, among required personal attributes (as reflected in the literature), being flexible and adaptable receives a significantly high percentage score of 87.5% and a willingness to continue learning in such a transient environment, sits at 50%.

4.2.3.3 Librarians' views on required knowledge for effective postgraduate support in the digital age

During the interviews with the eight librarians, they were asked the following question: "Reflecting on your own situation as a humanities librarian and with reference to the digital age: what necessary knowledge (that is, what one should know or what understanding one should have) do you think you require in order to effectively provide support to postgraduate students?" (see Appendix A). The librarians' comments are captured in Table 4.9.

Table 4.9: Librarians' views on required knowledge for effective postgraduate support in the digital age (N=8)

Required knowledge	No. of librarians
Bibliometrics knowledge (e.g. h-index, impact factor, etc.)	3
Knowledge gained from a postgraduate degree (LIS and other subject domains)	2
Knowledge of different languages (e.g. German, French, Italian, etc.) especially when cataloguing	2
Knowledge of new & current trends (within LIS & other subject domains)	2
Subject knowledge	2
Academic publishing knowledge	1
Knowledge of collection development	1
Knowledge of copyright law	1
Knowledge of creative commons licensing	1
Knowledge of digital humanities	1
Knowledge of open access	1
Knowledge of referencing management tools (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)	1
Knowledge of research data management	1
Knowledge of research methodologies (e.g. qualitative, quantitative, mixed methods)	1
Knowledge of scholarly communication	1

Bibliometrics knowledge ranks number one in terms of the required knowledge among the interviewed librarians. Bibliometrics also features in Table 4.6 as a discipline-specific skill. New trends in academic libraries such as digital humanities, open access, research data management and scholarly communication (Association of College & Research Libraries [ACRL] Research Planning and Review Committee, 2016) all feature in Table 4.9, an indication of emerging trends within LIS.

4.2.3.4 Librarians' views on required skills for effective postgraduate support in the digital age

During the semi-structured interviews with the librarians, they were asked: "Reflecting on your own situation as a humanities librarian and with reference to the digital age: what necessary skills (that is, what one should be able to do) do you think you require in order to effectively provide support to postgraduate students?" (see Appendix A). A significant trend in the literature on LIS workplace knowledge and skills (Orme, 2008; Nonthacumjane, 2011; Tanloet and Tuamsuk, 2011; Raju, 2014; Raju, 2016) is to separate discipline-specific skills, generic skills and personal attributes, the latter referring to attitudes, values and personal traits as opposed to generic skills which are transferable and applicable to all disciplinary domains. Discipline-specific skills refer to those skills which are specific to the discipline or profession. Hence in Table 4.10 the researcher presents the interviewed librarians' views on discipline-specific skills required by humanities librarians in the current digital age in order to effectively support postgraduate students whilst Table 4.11 presents the generic skills and their views on required personal attributes are captured in Table 4.12.

Table 4.10: Librarians' views on required professional/discipline-specific skills for effective postgraduate support in the digital age (N=8)

Required discipline-specific skills	No. of librarians
Information finding skills (e.g. searching for journal articles, statistics, government publications, etc.)	2
Bibliometric skills (e.g. h-index, impact factor, etc.)	1
Cataloguing skills	1
Collection development skills	1
Referencing management skills (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)	1
Using electronic resources	1

It is interesting to note that Information finding skills is located at the top of the list, albeit a concise list, which may be an indication of the importance and continued relevance of traditional library skills. Bibliometric skills also feature in Table 4.6 (Professional/discipline-specific skills, as reflected in the literature) which may be an indication of an emerging skills area for academic librarians in the current digital age. Cataloguing skills and Using electronic resources also featured in Table 4.6, again emphasising the value of traditional library skills.

Table 4.11: Librarians' views on required generic skills for effective postgraduate support in the digital age (N=8)

Required generic skills	No. of librarians
Ability to work with a diversity of postgraduate students (e.g. diverse levels of technology skills, language barriers, varying cognitive abilities, etc.)	2
Social media skills	2
Communication skills	1
Coping skills	1
Management skills	1
Quantitative skills (e.g. graphs, tables, MS Excel, etc.)	1
Reasoning skills	1
Referral skills	1
Research skills	1
Skills for new technologies	1
Teaching/training skills	1

Ability for humanities librarians to work with a diverse group of postgraduate students and Social media skills, both of which appear at the top of the list in Table 4.11, also features in Table 4.7 (Generic skills, as reflected in the literature). Social media skills enjoys a significant percentage count (21%) in Table 4.7 - perhaps indicating the importance of this generic skill in the current digital age, especially among young adults such as the majority of university postgraduate students. Teaching/training skills, which features in Table 4.11, albeit at the lower end, also features in Table 4.7 but high up at 36%, perhaps signalling this as an emerging skills trend in academic libraries.

Table 4.12: Librarians' views on required personal attributes for effective postgraduate support in the digital age (N=8)

Personal attributes	No. of librarians
Patience	2
Ethical consideration	1
Trust	1

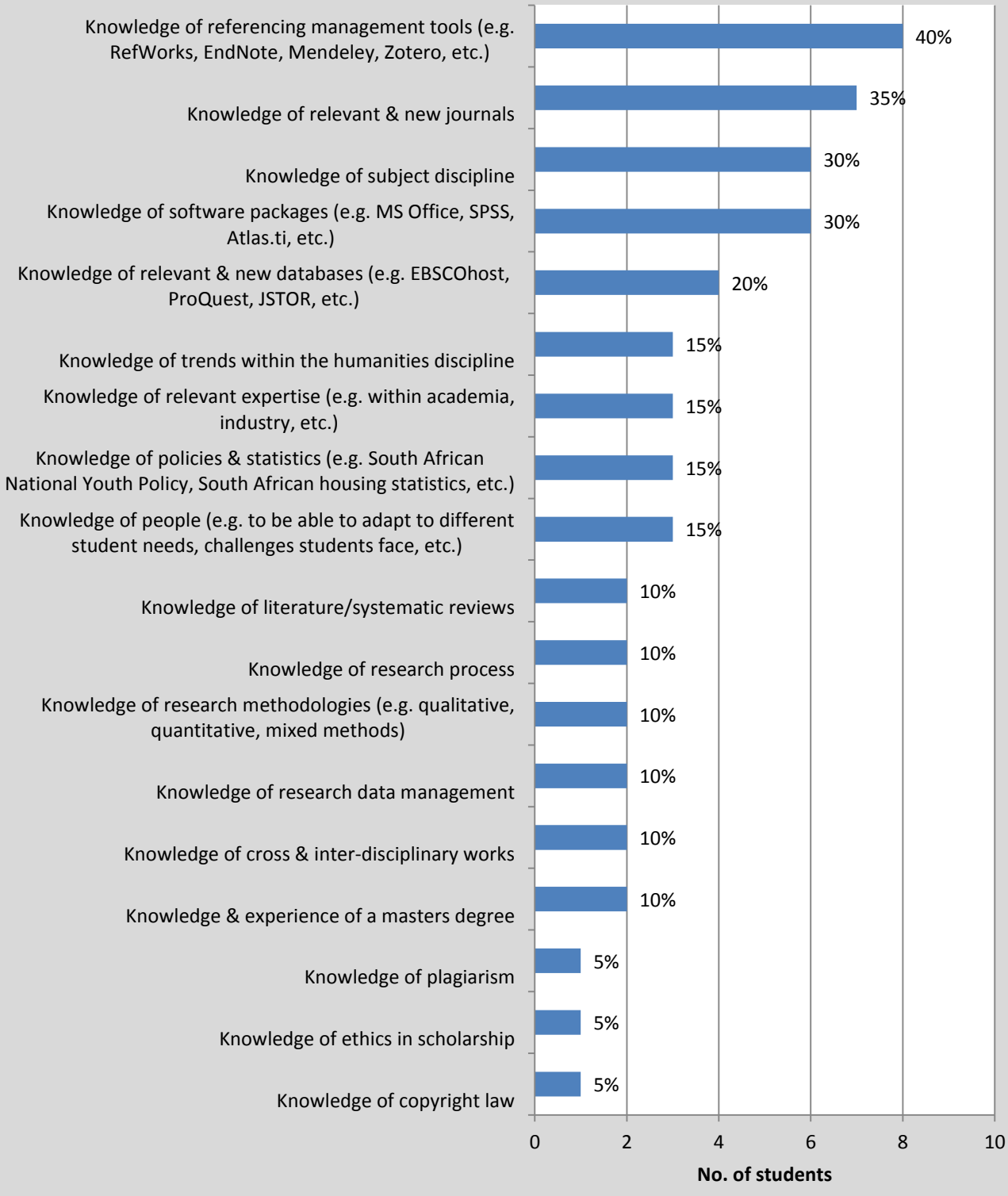
Librarians interviewed mentioned three personal attributes namely, Patience, Ethical considerations and Trust. It is useful to note that Morals and ethics, related to Ethical

consideration, appear in Table 4.8 (Personal attributes, as reflected in the literature) at a noteworthy 25% frequency.

4.2.3.5 Postgraduate students' views on knowledge required by humanities librarians for effective postgraduate support in the digital age

Focus group discussions and interviews with postgraduate students on the issue of what knowledge they thought a humanities librarian should possess in order to effectively support them as masters or PhD students in the digital age (see Appendix B) generated a plethora of comments which when reduced to knowledge categories produced, what is captured in Figure 4.5 as knowledge categories expressed by this respondent group.

Figure 4.5: Postgraduate students' view on knowledge required by humanities librarians for effective postgraduate support in the digital age (N=20)



Not surprisingly, Knowledge of referencing management tools such as *RefWorks*, *EndNote*, *Mendeley* and *Zotero* ranks top of the list of postgraduate students' views on knowledge required by humanities librarians for effective postgraduate support in the digital age. This knowledge item also features in Figure 4.3 (Humanities librarians' current knowledge for postgraduate support), Figure 4.4 (Humanities librarians' current skills for postgraduate support), Table 4.5 (Professional/discipline-specific knowledge reflected in the literature) and in Table 4.9. (Librarians' views on required knowledge for postgraduate support) – indicating an important area for knowledge acquisition.

4.2.3.6 Postgraduate students' views on skills required by humanities librarians for effective postgraduate support in the digital age

During the focus group discussions or interviews with postgraduate students they were asked what skills they thought a humanities librarian should possess in order to effectively support them as masters or PhD students in the digital age (see Appendix B). Tables 4.13, 4.14 and 4.15 capture the responses separated into discipline-specific skills, generic skills and personal attributes, for reasons already mentioned in Section 4.2.3.2. and Section 4.2.3.4.

Table 4.13: Postgraduate students' views on professional/discipline-specific skills required by humanities librarians for effective postgraduate support in the digital age (N=20)

Professional/discipline-specific skills	No. of students
Electronic information seeking skills	6
Reference interview skills	6
Referencing management skills (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)	6
Literature & systematic review skills	3
Information evaluation skills	2
Using electronic databases	1
Using plagiarism check software (e.g. Turnitin, etc.)	1

It is worth highlighting that Electronic information seeking skills, Reference interview skills and Referencing management skills stand out in frequency counts in Table 4.13.

Table 4.14: Postgraduate students' views on generic skills required by humanities librarians for effective postgraduate support in the digital age (N=20)

Required generic skills	No. of students
Interpersonal skills	5
General technology & computer skills	4
Communication skills	3
Skills in creating a safe space for students (e.g. to seek advice or discuss new ideas, etc.)	3
Skills to create personalised relationships	3
Listening skills	2
Skilled in referring students to relevant resources (e.g. referring students to people within & from outside of the university community, etc.)	2
Teaching/training skills	2
Using quantitative & qualitative data analysis software (e.g. NVivo, SPSS, Atlas.ti, etc.)	2
Conceptual skills	1
Copyright skills	1
Postgraduate degree skills	1
Skills in assisting non-contact students	1
Skills in managing a diverse postgraduate student body	1
Skills in managing student anxiety	1
Social media skills	1

Interpersonal skills, listed at the top of Table 4.14, also feature in Table 4.7 (Generic skills, as reflected in the literature) at a percentage count of 29%.

Table 4.15: Postgraduate students' views on personal attributes required by humanities librarians for effective postgraduate support in the digital age (N=20)

Personal attributes	No. of students
Approachable	2
Enthusiastic & willing	2
Keen interest in people	2
Flexible	1
Patience	1
Proactive	1

The postgraduate students mentioned six personal attributes that they thought were required by humanities librarians for effective postgraduate support in the digital age. Approachable and enthusiastic, the first two personal attributes in Table 4.15 are also located at the upper end in Table 4.8, which displays personal attributes as reflected in the literature.

4.2.4 What tools and resources are required by the humanities librarians in order to support postgraduate students?

In terms of the Core Competency Theory, in order to use tools and resources effectively, a certain amount of knowledge and skill are required. The knowledge would be the acumen to select the correct tool and/or resource for a particular task, ensuring that it is used effectively and efficiently. The skill in using a tool and/or resource would require expertise and dexterity (Prahalad and Hamel, 1990). These competencies, acquired through experience, continuing professional development or formal education reside with the individual and will be passed on and shared with the organisation so that the individual's knowledge and skills become the building blocks for institutional core competencies (Prahalad and Hamel, 1990: 4).

Data to address Critical Question Four were sourced from relevant literature reviewed for the study (Chapter Two), from semi-structured interviews held with the purposively selected librarians and from focus group discussions or interviews with postgraduate students.

4.2.4.1 Tools and resources required by humanities librarians to support postgraduate students, as reflected in the literature

Not all the literature speaks explicitly of tools and resources required, and much of the data from the literature have been inferred by the authors of the various studies or are implicitly reflected in the literature. This is captured in Table 4.16. Again, what is reflected in the literature does not necessarily apply to humanities librarians' support of postgraduate students per se, but could nonetheless be applicable.

Table 4.16: Tools and resources required by librarians, as reflected in the literature

Tools and Resources	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Blakiston (2011) USA	Nonthacumjane (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	%
Web 2.0 tools (e.g. Elluminate, Adobe Connect, Meebo chat, etc.)	✓	✓	✓	✓			✓				✓	55%
ICT Tools (e.g. new technologies, high-end technology & computing, etc.)		✓		✓		✓	✓	✓				45%
Research data management tools (e.g. DataBib, DataONE, etc.)						✓			✓		✓	27%
Information management tools (e.g. PESTLE - Political, Economic, Social, Technological, Legal, Environmental, etc.)					✓		✓					18%
Web markup language tools & resources (HTML, XML, metadata)		✓						✓				18%
Online research tools (e.g. Google, Wikipedia, LinkDIn, ResearchGate, etc.)						✓					✓	18%
Research collaboration tools & resources (e.g. video, web-conferencing technologies, etc.)						✓					✓	18%
Technology associated with LIS applications in the digital era								✓		✓		18%
Bibliometric & altmetric tools & resources (e.g. Scopus, VantagePoint, ImpactStory, Crowdometer etc.)											✓	9%
Curation tools & resources (e.g. Archive-It, DataUp, etc.)									✓			9%

Table 4.16 (cont.)

Tools and Resources	Luce (2008) USA	Kealy (2009) AU	Partridge et al. (2010) AU	Blakiston (2011) USA	Nonthacumjane (2011) Thailand	Thomas (2011) AU	Kwanya, Stilwell & Underwood (2012) Kenya	Ocholla & Shongwe (2013) SA	Kahn et al. (2014) SA	Raju (2014; 2016) SA	Chiware & Mathe (2015) SA	%
Customer service tools & resources (e.g. training programmes, etc.)							✓					9%
Data analysis tools & resources (e.g. NVivo, SPSS, Atlas.ti, etc.)											✓	9%
Digitisation tools & resources (e.g. Optical Character Recognition (OCR), Audacity, etc.)		✓										9%
ICT principles & ICT infrastructure tools & resources								✓				9%
Indexing, cataloguing, classification, & abstracting tools & resources							✓					9%
Navigating the patent literature (e.g. PatentLens, etc.)						✓						9%
Publishing tools & resources (e.g. Open Monograph Press, etc.)							✓					9%
Referencing management tools (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)											✓	9%
Storage & network infrastructure tools and resources (e.g. storage resource management (SRM), network monitoring tools, etc.)									✓			9%
Strategic planning tools & resources (e.g. management planning software, etc.)							✓					9%
Workflow tools (e.g. Web curator tool, etc.)	✓											9%

It is not surprising that in the current digital age academic library environment, Web 2.0 and ICT related tools, dominate in Table 4.16.

4.2.4.2 Librarians' views on tools and resources required for postgraduate support

During the interviews with librarians, the respondents were asked to consider their own situations as humanities librarians and based on this, to explain what tools and resources they required to in order to support postgraduate students (see Appendix A). Twenty-eight comments were made of which 18 were unique and these are captured in Table 4.17.

Table 4.17: Librarians' views on tools and resources required for postgraduate support (N=8)

Tools and resources	No. of librarians
Access to full text databases (e.g. EBSCOhost, ProQuest, JSTOR, etc.)	3
Human resources (e.g. additional staff)	2
Office/bookable room for staff for work requiring focus & concentration	2
Time	2
Bibliometrics & altmetrics librarian	1
Budget support (e.g. to purchase new databases)	1
Digital humanities expertise	1
Equipment (e.g. IT equipment, etc.)	1
General management support	1
IT technical support	1
Laptops & internet access for students	1
Librarian - postgraduate students	1
Librarian - undergraduate students	1
Referencing management tools (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)	1
Study space for postgraduate students	1
Subject guides	1
Wider range of journal subscriptions	1
YouTube (needed as a medium for accessing training material for staff & postgraduate students)	1

It is useful to note that Access to full text databases, Additional staff, Office space and Time are valued tools and resources by librarians in their support of postgraduate students.

4.2.4.3 Postgraduate students' views on tools and resources required by humanities librarians for postgraduate support

In the focus group discussions and interviews with postgraduate students they were asked to consider their own situations as masters or PhD students and based on this, to explain what tools and resources they think would be required by humanities librarians in order to support them as postgraduate students (see Appendix B). Students commented on availability, visibility and user-friendliness of the tools and resources (tabulated in Table 4.18) that they either have (but for which they would like better functionality) or would like to have in the future.

Table 4.18: Postgraduate students' views on tools and resources required by humanities librarians for postgraduate support (N=20)

Tools and resources	No. of students
Software packages for data analysis (e.g. NVivo, SPSS, Atlas.ti, etc.)	5
Websites for additional research information (e.g. library, departmental & other websites)	5
Referencing management tools (e.g. RefWorks, EndNote, Mendeley, Zotero, etc.)	4
Experienced librarians	3
Databases (e.g. EBSCOhost, ProQuest, JSTOR, etc.)	2
Electronic resources for non-contact/distance students	2
Institutional repository (e.g. theses & dissertations)	2
Librarians who have or are studying towards a masters degree to provide value added research support	2
Library access during write-up of PhD proposal without being registered	2
Research methodology literature & database (e.g. SAGE online, etc.)	2
Subject guides prepared by librarians	2
Data storage facilities	1
How to write a thesis or dissertation	1
Library research space	1
Open Access advocacy	1
Recommended books (e.g. subject or topic related, laws, policies, theories, etc.)	1
Student assistants (when librarians are not available to assist)	1

Software packages for data analysis, Websites for additional research information, Referencing management tools and Experienced librarians were some of the tools and resources which postgraduate students placed emphasis on among what they considered to be necessary tools and resources for humanities librarians providing support to postgraduate students. It is interesting to note that Software packages for data analysis also feature in Table 4.16 (Tools and resources required by librarians, as reflected in the literature) under the item Data analysis tools and resources. Referencing management tools too feature in Table 4.16 as well as in Table 4.17 (Librarians' views on tools and resources required for postgraduate support). Experienced librarians emphasised by postgraduate students are also emphasised in Table 4.17 by interviewed librarians as the need for human resources (extra staff) to provide postgraduate library support.

4.2.5 What role does the parent organisation play in preparing humanities librarians for postgraduate student support?

Critical Question Five sought to ascertain the role that the parent organisation plays in preparing humanities librarians for postgraduate student support. In terms of the Core Competency Theory, one of the three elements of this theory (previously discussed in Section 2.2.1 of Chapter Two) is governance (such as institutional support by the parent organisation) (Prahalad, 1993: 45). Organisations that display high levels of core competencies are deemed to be organisations that have supportive environments and such organisations give rise to collective learning across the organisations (Selznick, 1957; Prahalad and Hamel, 1990: 4; Tannenbaum (1997) cited in Blakiston, 2011: 729).

Data to address Critical Question Five were sought in the literature as well as from semi-structured interviews held with purposively selected librarians from the three institutions selected as research sites for this study.

4.2.5.1 Role of the parent organisation in preparing humanities librarians for postgraduate student support, as reflected in the literature

Unfortunately, there was relatively very little evidence from the literature as to the role that the parent organisation plays in preparing librarians for postgraduate support. Perhaps a possible reason for the sparse evidence in the literature could be that the role of the library

is seen as one and the same as that of the parent organisation, as revealed in the findings that follow.

Explicit examples from the literature:

> "The development of RDM services is part of the Library's own e-strategic plan which is closely linked to the institutional goal of being 'at the heart of technology education in Africa'".
>
> (Cape Peninsula University of Technology (CPUT), 2015 cited in Chiware and Mathe, 2015: 1).

> "RDM services at CPUT are being developed on the premise that, within an e-research environment, several components exist including: infrastructure development; information flow and management; communication with researchers; development of tools related to the full research lifecycle and the means to store, curate and retrieve data for further use; and the training of researchers. The RDM services at CPUT are part of a joint project called e-Research Infrastructure and Communication (eRIC, accessible at http://eric-project.org/)".
>
> (Chiware and Mathe, 2015: 4)

> "CPUT Libraries decided to run a pilot project with one or two research groups before rolling out the full service infrastructure to the university. The development of RDM services should be based on the needs of researchers, the identification and integration of the necessary technologies as well as the expertise to manage the platforms and workflows. Through the CPUT RDM Working Group, researchers were invited to workshops on data services. The purpose of the workshops was to introduce the initiative, provide a platform for the institutional policy development processes, gather requirements from a larger population of researchers, and gain pilot project partners willing to commit to the initiative".
>
> (Chiware and Mathe, 2015: 4)

> “Of the 23 universities in South Africa, only the University of Pretoria (UP) currently has a formal RDM policy (Woolfrey, 2014); it dates from 2007”.
>
> (Kahn et al., 2014: 297)

> "Policies related directly to data management have yet to be implemented, although universities such as Stellenbosch University, University of Cape Town (UCT), University of South Africa and University of the Witwatersrand have related policies, such as codes of research practice and research ethics".
>
> (Kahn et al., 2014: 297)

> “Three separate working parties, each consisting of TILS [Division of Technology, Information and Learning Support] staff have been established to pursue the project objectives. Working Party One has created the Guidelines for the Management of Research Data at QUT document, (Callan et al., 2009), the purpose of which is for researchers and research support staff to benefit from the availability of guidelines for good data management practice and planning. Working Party Two has developed e-research training programs for TILS staff and QUT [Queensland University of Technology] researchers in order to build their e-research skills and knowledge”.
>
> (Thomas, 2011: 42)

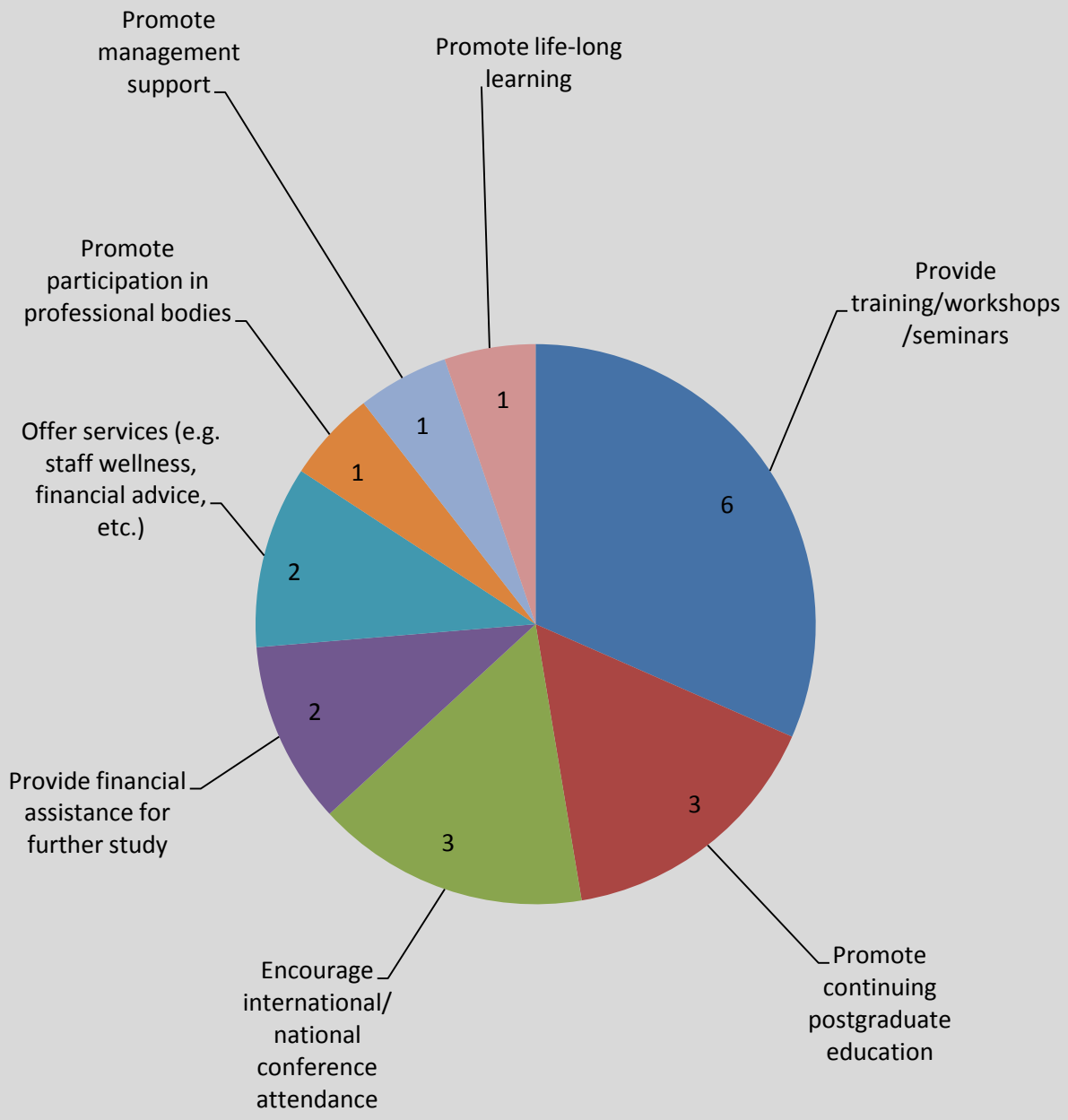
These narratives illustrate explicit institutional support for new services such as research data management which is currently challenging academic libraries. Institutional support for other areas such as human resources (extra staff), additional physical space, greater access to tools and resources such as full text databases for librarians supporting postgraduate students, are implicit in the literature.

4.2.5.2 Librarian’s views on the role of the parent organisation in preparing humanities librarians for postgraduate student support

During the interviews with the eight librarians, they were asked to reflect on their own higher education institutions and based on this, to explain what role their parent organisations (their universities) played in preparing them for postgraduate student support (see Appendix A). All eight of the librarians commented on the various ways in which their

parent organisations have prepared them for postgraduate student support. The librarians usefully pointed out that they viewed the support by the library as one and the same as the support from the parent organisation, for example, "…[the] university and library doing the same thing from different points of view…" and, "…direct support…works through the library……coaching of young librarians…". Figure 4.6 captures the views of the librarians on this issue.

Figure 4.6: Librarians' views on the role of the parent organisation in preparing humanities librarians for postgraduate student support (N=8)



It is useful to observe that the significantly featured areas indicated by interviewed librarians in Figure 4.6 (that is, Provide training/workshops/seminars; Promote continuing postgraduate education; Encourage international/national conference attendance; Provide

financial assistance for further study) all relate to growing knowledge and skills in the workplace.

4.3 Chapter summary

Chapter Four presented the findings of the study. The findings were based on the analysis of data collected from humanities librarians and postgraduates students purposively sampled from the three universities in the Western Cape used as research sites in the study. Chapter Five discusses the main findings of the study in the context of the theory supporting the study and the literature reviewed, and based on this discussion, conclusions are drawn and recommendations are made.

CHAPTER 5: DISCUSSION OF MAIN FINDINGS, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

5.1 Introduction

Chapter Four presented the findings of the study that were based on the analysis of data collected from relevant literature and, humanities librarians and postgraduates students purposively sampled from the three universities in the Western Cape selected as research sites for this study. This chapter discusses the main findings of the study in the context of the theory supporting the study and the literature reviewed, and based on this discussion, conclusions are drawn and recommendations are made.

The study's objective was to develop a knowledge and skills framework for humanities librarians who support postgraduate students so that such librarians may 'measure' their current knowledge and skills and, identify areas for new skills acquisition. For theoretical support, this study drew on the work of organisational theorist Selznick (1957). His work focuses specifically on the area of workplace core competency requirements. Prahalad and Hamel (1990), Prahalad (1993), Lahti (1999) and Hafeez, Zhang and Malak (2002) are later works that further expand the Core Competency Theory which in viewing core competencies as key drivers in organisational efficiency, provided guidance in the generation of critical questions addressing the study's objective:

- What knowledge and skills do humanities librarians supporting postgraduate students currently possess?
- How are academic libraries currently supporting and assisting the professional development of their humanities librarians working with postgraduate students?
- What are the necessary knowledge and skills that humanities librarians require in order for them to effectively provide support to postgraduate students in the current digital age?
- What tools and resources are required by the humanities librarians in order to support postgraduate students?
- What role does the parent organisation play in preparing humanities librarians for postgraduate student support?

5.2 Discussion of main findings

The main findings are discussed in terms of the five critical questions guiding the study.

5.2.1 What knowledge and skills do humanities librarians supporting postgraduate students currently possess?

The knowledge and skills humanities librarians currently possess in order to support postgraduate students were commented on by the eight humanities librarians during the semi-structured interviews. Whilst it was not always easy to separate knowledge and skills, these two concepts were clarified during the interviews with librarians (see Appendix A) and focus group discussions or interviews with postgraduate students (see Appendix B) as well as defined in Section 1.6.5 of Chapter One. To re-iterate, knowledge was clarified to be what one should know or what understanding one should have (Oxford English Dictionary Online, 2015) while skills were explained to be what one should be able to do (Oxford English Dictionary Online, 2015). In support of this attempt to clarify these two concepts for the purpose of this study, the study cites Tanloet and Tuamsuk (2011: 125) who explain that "…the knowledge and understanding of information professionals…is derived from their own accumulated experiences or from self-learning and development" within the context of LIS and academic libraries. Additionally, Pearsall (2002: 786) states that knowledge can be defined as "information and skills acquired through experience or education; awareness or familiarity gained by experience". Alternatively, skill is defined by Tanloet and Tuamsuk (2011: 125) as "the ability of the information professionals derived from practice to the level of expertise in the work related to the operation of academic libraries" so that knowledge (understanding of) and skills (ability to do) are understood to be the units that constitute competency (Selznick, 1957).

Subject knowledge; Database knowledge (for example, EBSCOhost, ProQuest, JSTOR, etc.); Knowledge about the academic environment, the university and services on offer; Knowledge of the structure of literature reviews (including systematic reviews) and Knowledge of referencing management tools were some of the knowledge categories mentioned by the eight interviewed librarians. Of notable interest is the subject knowledge category where seven out of the eight librarians observed this knowledge set to be of high importance and commented that some degree of subject knowledge was part of the knowledge they believed humanities librarians currently possessed in their support of postgraduate students.

However, the majority of librarians interviewed (seven out of eight) believe that it is not necessary to be an expert in the subject of a particular discipline but that over time, some expertise in the subject should be developed as an indication of interest in the subject as well as an interest in supporting postgraduate students in that subject area. This development of subject knowledge is also indicative, in the view of the researcher, of an organisation that, as a whole and over time, acquires new knowledge and skills and expands on the existing knowledge and skills. This kind of collective learning across the organisation is a critical element of Core Competency Theory (Prahalad and Hamel, 1990: 4) which has provided theoretical support for this study.

Although the findings from the librarians interviewed indicate that a working knowledge of the subject is needed and not necessarily expert knowledge, one librarian explained that subject knowledge, in his/her case, was far more important than professional LIS knowledge due to the particular 'branch' library that he/she worked in. It may then be assumed that there are certain humanities subjects, for example Music that may require librarians to be experts in the subject field. Music, which is considered to be a highly specialised subject area in librarianship, has traditionally been a discipline governed by greater importance being placed on having a music degree than a qualification in LIS (Morrow, 2005: 655). This trend has developed historically - Morrow (2005: 665) explains that during the 1970s music librarians, more often than not, obtained their qualification in a music degree before even considering entering the profession of librarianship. A more recent study by Clark (2013: 472) examines the MLA (Music Library Association) Job List from 2008 to 2011 for all entry-level music-library job announcements. Findings show that one of the most frequently required qualifications for employment in music librarianship was an undergraduate degree in music or related experience (Clark, 2013: 489). The second most frequently required qualification was a graduate degree in music – indicating the need for expert subject knowledge for certain humanities or arts (depending on a university's classification) subjects.

A little over a third of the postgraduate student respondents commented on the issue of subject knowledge and all of them who did comment, conveyed a sense that it was not necessary for humanities librarians to be experts in their subject fields as they believed the

onus was on both the postgraduate student and the supervisor to be experts in the field of study. They believed that the humanities librarians should have a broad knowledge of humanities subjects. This highlights a correlation in the understanding of subject knowledge ownership, between the majority of librarians and postgraduate students interviewed.

During the interviews with librarians the topic of whether or not a librarian should hold a postgraduate degree, emerged. In this instance, the term postgraduate degree was considered to mean a masters degree or higher in any subject domain (this includes a subject masters or subject PhD, or a LIS masters or LIS PhD). One out of the six librarians, who touched on this topic, commented that a masters degree was not necessary when supporting postgraduate students. However, two of the librarians commented, during the investigation of Critical Question One, that a masters degree was important while two librarians mentioned, during the investigation of Critical Question Three, the importance of a masters degree. Thus four librarians interviewed commented that possession of a postgraduate degree was useful when supporting postgraduate students. Whilst masters degrees sits at number six (out of 13) on the list of humanities librarians' current knowledge for postgraduate support (Figure 4.3), it is located in the top third of the list of librarians' views on required knowledge for effective postgraduate support in the digital age (Table 4.9). As one librarian remarked, "…as a librarian for postgraduate students you have to have experience in research yourself…" - with a strong emphasis on not wanting a degree for her or himself but to better understand the postgraduate students plight. This novel finding in this study is perhaps an indication of a postgraduate degree at masters level being made, in the future, a requirement for the job in the case of librarians providing postgraduate support in research intensive universities.

During the focus group discussions and interviews, a handful of the postgraduate students expressed their views relating to librarians and postgraduate degrees. In correlation with the librarians' views on postgraduate degrees, all the postgraduate students who commented on this topic believed that a librarian who has a postgraduate qualification is better equipped to assist them. One postgraduate student cogently commented:

> "In terms of my own experience with [my librarian]…that's really what I found important when I interacted with [my librarian] because we could share laughs

> over similar barriers and mental blocks as we went through it…being fieldwork or writing up or the proposal phase and it makes a difference because for me I know that [my librarian] understand[s] what I am talking about…"

This comment is a clear indication of the comfort and confidence postgraduate students feel in knowing that their librarian has experienced the entire research life cycle through acquiring a masters degree. Briefly, this includes beginning with an idea (conceptualisation of the research problem) and investigating the proposed topic for viability, working with different units such as the university Writing Centre and Postgraduate Funding Office, the proposal writing stage, the actual research process which includes the literature review stage, theory selection, deciding on a research methodology, collecting and analysing the data, the writing up of the final thesis, and the publishing of a journal article/s. The surfacing of this knowledge set (that is, a masters degree) as required in postgraduate support among both librarian and postgraduate student respondents, is an indication of its importance and is a novel finding in this study.

Teaching/training skills; Information searching skills; Interpersonal skills; Reading up on a subject or interest in a subject; Communication skills; Referencing management skills; Social media skills; and Understanding the needs of the postgraduate students are humanities librarians current skills for postgraduate support found among the top one third in Figure 4.4. Teaching/training skills was the skills set mentioned by each of the eight librarians interviewed and hence appears at the top of the list of skills currently possessed by humanities librarians in order to support postgraduate students (see Figure 4.4). Librarians interviewed also viewed Teaching/training skills as a required generic skill for effective postgraduate support in the digital age (see Table 4.11) and, further, postgraduate students also make mention of Teaching/training skills for the same purpose (see Table 4.14). This convergence of views suggests the critical nature of this skills set when supporting postgraduate students in the digital age.

Data extracted from the literature (see Table 4.7) show Teaching, training and coaching skills in the top five (frequency percentage of 36%) generic skills required of academic librarians. Academic librarians are generally involved in teaching and training in the form of one-on-one specialised sessions, small group sessions that either deal with a particular

subject topic or a particular stage of the research cycle such as a literature review session or in larger teaching and training sessions covering a variety of topics. Therefore librarians are required to be flexible, adaptable and knowledgeable. This is particularly relevant especially in the current environment in South Africa which librarians find themselves in - where the postgraduate student cohort is quite diverse in terms of mother tongue language, information literacy levels, digital literacy levels, academic literacy levels, and diversity of bachelor degree university backgrounds that postgraduate students emanate from. Hence teaching and training as a skills set would assist the librarian in supporting the postgraduate student and it is not surprising that this particular skills set features strongly in all three data sets (humanities librarians, postgraduate students and the literature). Ketlhoilwe and Molatedi (2015: 8) re-iterate that teaching skills "are essential when offering a reference service" and Tanloet and Tuamsuk (2011: 126) provide guidance that teaching activities should be streamlined according to the needs of different user groups and that those involved in these activities should have the "ability to understand expectations of learners, answer questions related to taught topics, select techniques and teaching and training approaches accurately and suitable to individuals" – emphasising further the critical nature of this skills set.

In summary then, the study revealed a list of knowledge and skills (the main ones being Subject knowledge; Database knowledge; Knowledge about the academic environment, the university and services on offer; Knowledge of literature and systematic review structure; Masters degrees; Knowledge of referencing management tools; Teaching/training skills; Information searching skills; Interpersonal skills; Reading up on a subject/interest in a subject; Communication skills; Referencing management skills; Social media skills; and Understanding the needs of the postgraduate student) which humanities librarians currently possess to support postgraduate students, with some knowledge and skills being seen as more important than others. While subject knowledge emerges as a knowledge set that humanities librarians should possess in order to support postgraduate students, expert knowledge of humanities subjects is not necessarily required to provide this support but rather a broad working knowledge of a subject is required. However, there are some humanities subjects, such as Music, that require deep subject knowledge due to the nature, content and language (musical scores) of the subject. There is a general consensus among

librarians and postgraduate students that a masters degree is of great benefit to humanities librarians in supporting postgraduate students. Teaching and training skills emerged as the most dominant current skill for postgraduate support in the digital age, with all of the eight librarians remarking on the significance of this skill, and the literature, librarian respondents and postgraduate student respondents all identifying Teaching, training and coaching skills as a required generic skill for providing support among a diversity of postgraduate students.

5.2.2 How are academic libraries currently supporting and assisting the professional development of their humanities librarians working with postgraduate students?

In terms of the Core Competency Theory, professional development of academic librarians is considered to be an activity that can yield an organisational workforce that remains upskilled, especially in the current digital age. It is therefore in the academic library's best interest to support professional development activities. From the literature it is evident that academic libraries are devoted supporters of professional development as indicated by scholars such as Sewdass and Theron (2004), Kealy (2009), Maesaroh and Genoni (2009), Zauha and Potter (2009), Mathew, Baby and Pillai (2010), Blakiston (2011), Tanloet and Tuamsuk (2011), Thomas (2011), Isberg (2012), Smith, Hurd and Schmidt (2013), Kahn et al. (2014) and Chiware and Mathe (2015). Types of professional development activities supported by libraries, as reflected in the literature, range from Training programmes to Conference attendance, Workshop participation, Formal education, Peer-to-peer learning activities and more.

Kealy (2009: 572) asserts that training programmes are ideal development activities for librarians to develop the necessary skills in order to support the needs of the library as well as the needs of students. Kealy (2009: 574) continues to explain that training programmes offered by libraries not only demonstrate support for the upskilling and reskilling of librarians but also "improves the quality of services delivered", enhancing productivity and assisting the library to remain competitive (Selznick, 1957; Prahalad and Hamel, 1990). By providing training programmes, the academic library is supporting and assisting the professional development of their humanities librarians working with postgraduate students.

In the interviews with the librarians, Training programmes were mentioned by all eight librarians, corroborating findings from the literature and illustrating the popularity of Training programmes as a professional development activity. Training programmes in the literature data set (see Table 4.1) received a frequency percentage of 78% (with the next item, Conferences, receiving 33%), signifying that it is the most supported professional development activity by academic libraries for continuing professional development of their librarians (which also then applies to humanities librarians working with postgraduate students). This could also signify the willingness of librarians to attend these training sessions and the value they place on this activity as a means for upskilling. From the academic library's perspective, it could also be one of the easiest, simplest and most cost effective ways of supporting the professional development of academic libraries: easiest in terms of in-house training programmes, simplest in terms of a training programme which is focused on one aspect of professional development and most cost effective in terms of having other librarians or other university staff facilitate the training.

A sub-theme that this researcher believes is worth highlighting is peer-to-peer learning. One interviewed librarian mentioned that in-house training programmes were particularly useful. This could possibly be an element of peer-to-peer learning where training programmes are arranged in-house and facilitated by librarians – a case of librarians training librarians. Librarians interviewed commented that the practice of peer-to-peer learning was common and encouraged by academic libraries as it assists librarians in staying up-to-date in a rapidly evolving technology environment, and hence contributes to upskilling and reskilling. Thus competencies are being revised continually in order for librarians to remain current and relevant. This ecosystem of knowledge and skills renewal and information sharing in the form of peer-to-peer learning are undertakings indicative of collective learning of an organisation wanting to remain relevant and competitive (Prahalad and Hamel, 1990: 4).

Formal education (such as a masters degree), featuring relatively high up in Table 4.1 which reflects professional development support as reflected in the literature, is a formal learning activity and brings about new acquisition of knowledge and skills and thereby strengthening the individual's competencies which are transferred onto the organisation. Librarians

interviewed commented that the support they receive from their parent organisation (the university) and indirectly from their academic libraries is financial assistance such as the staff rebate which discounts tuition fees and thereby acts as a source of encouragement for further study. This correlates with the importance of having a masters degree for postgraduate student support which was discussed earlier in Section 5.2.1 of this chapter, and in this context it is worth citing the following comment by a postgraduate student participating in the study: "I think that is it the same as a librarian catering to the undergraduates having a degree…someone catering to postgraduates…it is helpful for them to have a postgraduate or working towards a postgraduate [degree]…" – indicating the value of formal education, especially in the form of a masters degree, for postgraduate student support specifically.

It would seem then from findings in this study that while academic libraries support and assist their librarians' professional development in many ways, training programmes seem to be the most supported professional development activity by academic libraries for the professional development of their librarians, and by extension for humanities librarians supporting postgraduate students. This is reflected in the empirical aspect of this study as well as in the literature. These same sources also indicate that peer-to-peer learning is a common and encouraged professional development practice in academic libraries and that formal education is a professional development activity that is supported by academic libraries through, for example, the offering of a staff rebate on tuition fees.

5.2.3 What are the necessary knowledge and skills that humanities librarians require in order for them to effectively provide support to postgraduate students in the current digital age?

There has been much discussion about knowledge and skills in the literature especially the categories into which they may fall. The literature often distinguishes three broad categories, namely, discipline-specific (or professional) knowledge and skills (which for the purposes of data gathering for this study was separated into discipline-specific knowledge and discipline-specific skills), generic skills and personal attributes (Orme, 2008; Nonthacumjane, 2011; Tanloet and Tuamsuk, 2011; Raju, 2014; Raju, 2016). In order for humanities librarians to effectively support postgraduate students especially in the current

digital age, the researcher believes, based on the findings of this study, that a combination of the three broad categories of competencies is required. Similar observations have been made, for academic librarians generally, by Orme (2008), Nonthacumjane (2011), Kwanya, Stilwell and Underwood (2012), Raju (2014) and Raju (2016).

In terms of professional or discipline-specific knowledge, the dominant knowledge sets (with relatively high frequency counts) as reflected in the literature, by librarians interviewed and by postgraduate student respondents included: Knowledge of research data management and services; Knowledge of metadata and metadata standards; Knowledge of collection development; Knowledge of technology associated with LIS applications in the digital era; Knowledge of LIS industry and LIS client or user needs; Bibliometrics knowledge; Knowledge of new and current trends (within LIS and subject domains); Knowledge of subject discipline; Knowledge of referencing management tools; Knowledge of relevant and new journals, Knowledge of software packages relevant to research; Knowledge of relevant and new bibliographic and full-text databases; Knowledge of academic publishing; Knowledge of scholarly communication; Knowledge of relevant expertise (for example, within academia, industry, etc.); and, Knowledge of literature reviewing (including systematic reviewing of literature).

In terms of professional or discipline-specific skills, the dominant skills sets (with relatively high frequency counts) as reflected in the literature data sets, by librarians interviewed and by postgraduate student respondents included: Research data management skills; Metadata skills; Ability to use LIS technologies and tools to deliver effective library services; Research methodology skills; Information finding skills; Altmetric skills; Bibliometrics skills; Cataloguing skills; Collection development skills; Referencing management skills; Using electronic information resources; Reference interview skills; Literature review (including systematic reviewing of literature) skills; Information evaluation skills; and Using plagiarism check software. The overlap between knowledge (that is, what one knows or understands) and skills (that is, what one is able to do), made reference to at the beginning of this chapter, is evident in the knowledge and skills lists just enumerated in that there is, in some instances a semblance of commonality between the two lists. The researcher re-iterates that for preciseness in data collection these two categories needed to be separated, with

the intention of bringing them together in the end as a single competency category of discipline-specific knowledge and skills required by humanities librarians to support postgraduate students.

An interesting observation is the emergence in the literature data set of Knowledge of research data management and services as a dominant knowledge set, achieving a significant relative frequency percentage of 42% in Table 4.5. Knowledge of research data management is, however, given less attention by librarian and postgraduate student respondents. A reason for this could be that while research data management is an academic library trend that has received much attention in the literature with scholars writing much about this new trend, it would seem that with librarians and students interviewed, this trend is yet to surface in any significant way and that, over time, it will become more established and practised among humanities librarians and their postgraduate students. This explanation is confirmed by Kahn et al. (2014: 299) who assert that research data management among librarians in South Africa is an emerging trend in LIS. The development of awareness and knowledge of research data management among librarians and postgraduate students is suggestive of the accrual of new knowledge and skills as well as capacity-building demonstrating individual and collective learning across the organisation (Prahalad and Hamel, 1990: 4), as postulated by the Core Competency Theory supporting this study. Even though research data management is still an emerging trend in academic libraries in some contexts, the researcher believes that this knowledge category is necessary for humanities librarians to effectively provide support to their postgraduate students in the current digital age.

While knowledge of research data management and services was mentioned by all three data sources, only the literature data set reflected research data management skills, and at that with a top scoring relative frequency percentage of 50% (see Table 4.6). Librarian and postgraduate student respondents did not mention this skills set. This perhaps is a re-iteration of the observation made earlier that research data management is still an emerging trend in the workplace in some contexts even though it has already gained traction in the literature. And again, the researcher would like to emphasise that although research data management (both knowledge and skills) is an emerging trend in academic

libraries, this competency is necessary for humanities librarians to effectively provide support to postgraduate students in the current digital age.

The literature data set for professional or discipline-specific knowledge includes Knowledge of metadata and metadata standards as a dominant feature and which attained a noteworthy relative frequency percentage of 33% in Table 4.5 (second only to Knowledge of research data management and services at 42%). Metadata skills have a significant relative frequency percentage of 30% in Table 4.6. Luce (2008), Kealy (2009), and Ocholla and Shongwe (2013) agree on the significance of this knowledge category. During the process of cataloguing an item (for example, a book or an electronic document), metadata is produced. Metadata is defined as 'data about data' and provides a context in order for one to discover and interact with information. Metadata describes all information and includes assigning terms using well known metadata tools such RDA, AARC2, LCSH and using metadata standards such as MARC21, Dublin Core, etc. (see Table 4.5). Metadata skills would include assigning metadata (such as classification numbers, subject headings, terms to describe research data, etc.), using these tools and standards. With particular reference to the current digital era, research communities (including postgraduate students) find themselves faced with a plethora of data and information. Metadata is able to allow for resource discovery, effectively organises electronic resources, facilitates interoperability, integrates resources, facilitates digital identification, and protects resources and their future accessibility (Park et al., 2010: 158). This descriptive metadata facilitates discovery and access. Humanities librarians who are able to recognise the basic concepts of taxonomy, thesauri design and principles as well as descriptive and subject cataloguing (Park et al., 2010: 162; 164) would be a great asset to postgraduate students. Hence, metadata knowledge and skills are important competency requirements for humanities librarians in their support of postgraduate students.

While bibliometrics knowledge features prominently as required discipline-specific knowledge from the interviewed librarians' perspective, it does not feature at all in the data sets from the literature nor from the postgraduate student respondents. Notwithstanding this, the researcher believes that this knowledge set is of critical importance to the humanities librarian providing postgraduate support. This view is supported by the presence

of both bibliometric and altmetric skills in the discipline-specific skills sets (Table 4.6) reflected in the literature (a further reflection of the overlap between knowledge and skills). Further, bibliometric skills also feature as a required discipline-specific skills set, by librarians interviewed. Moreover, the researcher's own experience as a humanities librarian supporting postgraduate students is testimony of increasing bibliometric duties on the part of librarians in the academic library workplace, for example, assisting with ascertaining the h-index for postgraduate students and investigating the impact factor of particular journals that postgraduate students may wish to publish in. Postgraduate students need to track their h-indices and other citation profiles for purposes of research funding applications and very often, especially in research-intensive universities, they are expected to publish as a graduation requirement. In short, bibliometric (including altmetric) knowledge and skills is an important competency requirement for humanities librarians in their support of postgraduate students.

As a discipline-specific knowledge set, referencing management tools feature across all three sources of data (literature data sets, interviews with librarians and focus group discussions/interviews with postgraduate students), indicating the significance of this competency in the area of academic librarianship. Postgraduate student respondents view this discipline-specific knowledge as most important with a top relative frequency percentage of 40% (see Figure 4.5). Knowledge of and skills in referencing management tools do feature in the literature as well as librarian data sets but not as prominently as in the postgraduate student data set. This may suggest that postgraduate students attach more value to this knowledge and skills set as it is of direct relevance to their work as postgraduate students. One may assume that the postgraduate student respondents are indicating that they would favour a librarian who has knowledge of and skills in using referencing management tools. To this end, Chiware and Mathe (2015: 8-9) report that skills development for academic librarians should include knowledge of and skills in using referencing management tools such as *Mendeley*, with other examples being *RefWorks*, *EndNote* and *Zotero*.

Using electronic information resources and information finding skills are deemed to be traditional library skills and findings in this study indicate the continued significance placed

on these skills by librarians interviewed and by postgraduate students in focus group discussions and interviews, even in the midst of newer trends in academic libraries such as research data management, digital humanities, open access and other new means of scholarly communication. At the same time the enduring presence of these discipline-specific skills in the findings of this study do indicate an increasing shift towards online delivery of these traditional library services demonstrating reliance on electronic information resources and accompanying searching skills, especially in the current digital age. Humanities librarians interviewed make noticeable mention of information searching skills thus corroborating the need for this skills category in the digital context.

In terms of generic skills, the most prominent generic skills sets as reflected in the literature data sets, by librarians interviewed and by postgraduate student respondents included: Communication skills (by far the most required with an outstanding relative frequency percentage of 71% in Table 4.7); General ICT skills; Teamwork skills; Customer service skills; Management and supervisory skills; Teaching, training and coaching skills; Analytical and critical thinking skills; Interpersonal skills; Ability to work with a diversity of postgraduate students; Social media skills; Coping skills; Reasoning skills; Referral skills; Research skills; Skills for new technologies; Leadership skills; Marketing skills; Problem solving skills; Skills in creating a safe space for students to seek advice and discuss new ideas; Skills to create personalised relationships for research purposes; Listening skills; and Using quantitative and qualitative data analysis software.

Communication skills, with a significant relative frequency percentage of 71% in Table 4.7, warrants elaboration especially as it appears in all three data sets. Selematsela and Du Toit (2007), Partridge et al. (2010), Nonthacumjane (2011), Tanloet and Tuamsuk (2011), Kwanya, Stilwell and Underwood (2012), Ocholla and Shongwe (2013), Smith, Hurd and Schmidt (2013), Raju (2014), Chiware and Mathe (2015), Ketlhoilwe and Molatedi (2015), and Raju (2016) all, in the findings of their studies, draw attention to the importance of this generic skill. For Selematsela and Du Toit (2007: 125) communication skills, in their study, emerged as the most important skill especially for librarians who provided teaching, training and coaching. Nonthacumjane (2011: 284-286) concurs on the importance of communication skills and distinguishes between written and oral means of communication:

"communication is important to working efficiently in all media, with oral, written and presentation skills all required to maintain contact between the library staff themselves and with their users". The researcher believes that the more proficient one is in the art of communication the better the quality of professional relationships with all user and stakeholder communities, including postgraduate students. One would have an increased ability to exchange and convey ideas and information, minimising ambiguity and increasing efficiency. This reflects the Core Competency Theory whereby workplace competencies (such as communications skills) pave the way for a more efficient organisation.

With regards to interpersonal skills, one of the postgraduate student respondents cogently pointed out the importance of "having good interpersonal skills because if you were mean to me then I would have never come back…it is really important….". This point is reiterated by Ketlhoilwe and Molatedi (2015: 3) who remark that as "much as giving accurate answers to informational queries is important, establishing a rapport with patrons is more important and has been shown to influence a patron's willingness to return to the same librarian for further help"- hence the value of this generic skill in supporting postgraduate students.

Employers sometimes value the generic skills category perhaps even more than the discipline-specific competencies. Raju (2014: 167) found evidence of this in her 2014 study where "generic skills emerged as being the most required skills set". Orme (2008: 626) and Raju (2014: 165) acknowledge the occurrence of this "move towards the generic" but at the same time show evidence from their studies that discipline-specific knowledge and skills are still considered by employers to be valuable. Raju (2016: 11-12) observes that despite earlier findings in the literature of a "move to the generic", more recently "the pendulum is swinging back in the direction of discipline-specific knowledge" alluding to the trend that discipline-specific knowledge and skills seem to be re-asserting itself as the most required competency category. This phenomenon, Raju (2016: 12) explains, could be due to the impact of technology on the delivery of LIS services which is perhaps causing librarians to lean on discipline-specific knowledge and skills to "epistemologically frame" their participation and relevance in a technological-driven and rapidly evolving information landscape.

The personal attributes that dominated in the literature, librarian and postgraduate student data sets included being: Flexible and adaptable; Willing to continue learning; Self-motivated; Able to respond to others' needs; Able to work independently; Approachable; Confident; Enthusiastic; Able to exercise initiative; Able to display good morals and ethics; Patient; Trustworthy; Able to take a keen interest in people; and Being proactive. Raju (2014: 167) observes that personal attributes is that category of the three competency categories which lags behind the other two in frequency counts in LIS job advertisement studies: "This South African study, like those abroad, also saw personal skills, while sought by employers, lagging behind disciplinary knowledge and generic skills in popularity". In support of the value of personal attributes to the LIS workplace, Partridge et al. (2010: 271) comment that "personality traits, not just qualifications, were critical to be a successful librarian or contemporary information worker". Personal attributes, it is often argued, are innate and personality related and sometimes cannot be taught (in a LIS school curriculum, for example), but nevertheless are needed in the workplace for effective service delivery, and this too reflects the Core Competency Theory which promotes an effective, efficient and competent organisation.

Librarians and postgraduate students interviewed in this study seem to agree that patience is an important personal attribute in postgraduate support. Librarians' views are supported by findings from the literature data set that ethical considerations, also appearing in the findings of this study as observing morals and ethics, are essential in librarians' support of postgraduate students' research. Postgraduate students' views in this study are supported by findings from the literature data set that being approachable, enthusiastic and willing to help, as well as being flexible and adaptable are critical personal attributes especially in a LIS environment that is subject to continual flux in terms of technologies adopted.

To summarise this section on Critical Question Three, based on the preceding discussion, a combination of discipline-specific knowledge and skills, generic skills and personal attributes are required by humanities librarians in order to effectively support postgraduate students especially in the current digital age. While this study is not in a position to quantitatively demonstrate which competency category emerges as more required than the other (to demonstrate this was not critical to the objective of this study), recent trends in the

literature do seem to indicate the order of importance as being discipline-specific knowledge and skills, closely followed by generic skills with personal attributes being considered important but lagging somewhat behind the first two categories in terms of importance to the LIS workplace.

Discipline-specific knowledge and skills that have noticeably dominated in this competency category for postgraduate support include knowledge and skills in Research data management, Metadata, Bibliometrics (including Altmetrics), Referencing management tools, Using electronic information resources and Information finding skills. Dominant generic skills in this study include Communication skills; General ICT skills; Ability to work with a diversity of postgraduate students; Social media skills; and Interpersonal skills. With regard to personal attributes the following featured strongly in the findings from this study: being Flexible and adaptable; Willing to continue learning; Self-motivated; Able to display good morals and ethics; Approachable; and being Patient. These workplace core competencies allow for individuals (such as librarians) as well as the organisation (such as an academic library) to be competitive, efficient and effective, as espoused by the Core Competency Theory (Prahalad and Hamel, 1990: 1). In an academic library environment impacted by technological changes, the Core Competency Theory may be used to inform the presentation of a framework involving discipline-specific knowledge and skills, generic skills and personal attributes which would allow the academic library to remain competitive, efficient and effective in its support of postgraduate students, whilst remaining agile in a dynamic higher education LIS environment.

5.2.4 What tools and resources are required by the humanities librarians in order to support postgraduate students?

Humanities librarians require numerous tools and resources in order to support postgraduate students. Web 2.0 tools, ICT tools, Research data management tools, Information management tools; Web markup language tools, Online research tools, Research collaboration tools and Technology associated with LIS applications in the digital age, are some of the tools and resources highlighted by the data set extracted from the literature and which enjoyed higher frequency counts. Table 4.16 lists a host of others. Web 2.0 tools received a significant frequency percentage of 55%, ICT tools 45% and Research

data management tools 27% - indicating their dominance in Table 4.16 and hence their importance in librarians' support of their users.

Interestingly, referencing management tools (also listed in Table 4.16 but lower down the list) was not emphasised by the librarians interviewed as much as it was by the postgraduate student respondents who showed a clear tendency towards this resource. A reason for this could be that postgraduate students value this resource as it is critical to their own research. This is especially true for masters and PhD students who deal with large bibliographies and reference lists, and are required to organise their citations meticulously. Postgraduate students are constantly reminded that referencing and citation are the technical aspects of postgraduate work and they are penalised heavily for inconsistent and incorrect referencing. Chiware and Mathe (2015: 8-9) report that skills development for academic librarians should include knowledge and use of bibliographic management tools such as *Mendeley*, *RefWorks*, *EndNote*, *Zotero* and others, so as to support postgraduate students.

Other tools and resources that are required by humanities librarians in order to support postgraduate students are Data analysis tools and resources (also listed in Table 4.16) such as *NVivo*, *SPSS* and *Atlas.ti*. Postgraduate student respondents commented that they did not expect their librarian to be an expert in these resources but that a working knowledge would be sufficient. As a postgraduate librarian herself, the researcher believes that one cannot be an expert in all software applications. The idea would be for the librarian to have a working knowledge of the main data analysis software packages (and referencing management tools, as well). The librarian could then advise the postgraduate student on the benefits and pitfalls of each package and suggest the best tool for the particular task. Ideally, a librarian would then specialise in a data analysis software package and/or in a referencing management tool thereby creating a tiered approach to research support for postgraduate students. Students could then be referred to a librarian who specialises in *RefWorks* or *SPSS*, for example. There should preferably be more than one librarian specialist per package. Sometimes the specialist may be located outside of the university community or perhaps at another university, and hence the importance of having knowledge of the location of relevant expertise (for example, within academia or industry as

reflected in Figure 4.5) as well as to be skilled in referring students to the relevant resources within and outside of the university community (see Table 4.14). With the infinite amount of technologies and resources available and new technologies constantly being introduced, a team approach would need to be adopted so that knowledge and skills are pooled among librarians, in the interest of postgraduate support.

The most dominant tools and resources to emerge during interviews with the librarians were: Access to full text databases (for example, EBSCOhost, ProQuest, JSTOR, etc.); Human resources (for example, additional staff); Office or bookable room for staff for work requiring focus and concentration; and Time (see Table 4.17). The most dominant tools and resources as reflected during focus group discussions and interviews with the postgraduate students were: Software packages for data analysis (for example, *NVivo, SPSS, Atlas.ti*, etc.); Websites for additional research information (for example, library, departmental and other websites); Referencing management tools (for example, *RefWorks*, *EndNote*, *Mendeley*, *Zotero*, etc.); and Experienced librarians (see Table 4.18).

In order to use these tools and resources, a certain amount of understanding, expertise and dexterity are required. The knowledge and skills required to use these tools and resources efficiently are acquired over time and through experience and training so that the individual core competency is passed on to the rest of the organisation and onto the student as well – indicating collective learning across the organisation (Prahalad and Hamel, 1990: 4).

To sum up this discussion of findings in response to Critical Question Four, humanities librarians require a variety of tools and resources in order to support postgraduate students. While the literature data set reflects a whole host of these with some being more popular than others, referencing management tools such as *RefWorks*, *EndNote*, *Mendeley* and *Zotero* were emphasised by postgraduate student respondents as critical to their research. Postgraduate students also indicated that knowledge of and skills in data analysis tools such as *NVivo*, *SPSS* and *Atlas.ti* have a direct impact on their research. The researcher believes, in a context of a plethora of software applications and resources for research support being available in the digital age, that a team-based approach be adopted among librarians where each librarian becomes a specialist in an agreed-upon resource, thereby extending the pool

of specialist knowledge and skills and thus further supporting postgraduate student research in the digital age.

5.2.5 What role does the parent organisation play in preparing humanities librarians for postgraduate student support?

Librarians' views on the role of the parent organisation in preparing humanities librarians for postgraduate student support made no distinction between the parent organisation and the library itself. The role, in terms of support, was seen as one and the same thing in that support from the libraries was synonymous with support from the parent organisation. Librarians interviewed believed that all support emanating from the library actually originated from the parent organisation. This assumption does make sense as, for example, the budget to support librarians to support their users is funded through a central budget managed by the parent organisation, in this case the university.

According to the librarians interviewed, the most prominent kinds of support from the parent organisation was in the form of Providing training, workshops and/or seminars; Promoting continuing postgraduate education and to Encourage national and/or international conference attendance. Data from the literature captured in Table 4.1 reflects that Training programmes; Conferences; Workshops; Formal education and Resources dedicated to learning (for example, funding, time and venue) are the main types of professional development support that academic libraries offer their librarians. There is certainly some correlation in the kinds of support and assistance to librarians between reports from the literature (see Table 4.1) and reports from the librarians interviewed (see Figure 4.6), with training, workshops and seminars, conference attendance (both national and international) and support for formal education emerging as key areas of support from the parent organisation.

Mathew, Baby and Pillai (2010: 215-216) made similar observations with regards to professional development support by the academic library in terms of training programmes, workshops and conferences - demonstrating a commitment to professional development of librarians and acquisition of professional knowledge and skills (competencies) of the librarian and the organisation. According to Mathew, Baby and Pillai (2010: 216),

"competence of a library depends largely on the competence of its staff" and this relates to the Core Competency Theory with regards to individual and organisational core competencies and the collective learning and sharing that takes place across an organisation (Prahalad and Hamel, 1990: 4), such as an academic library.

Among the views of interviewed librarians on the role of the parent organisation in preparing postgraduate librarians for postgraduate support, mention is made of the parent organisation offering services such as staff wellness and financial advice (see Figure 4.6). This finding is of interest and importance as it reflects librarians' views of the role of the parent organisation extending beyond the boundaries of academic support. This holistic approach gives valuable insight into the role of the parent organisation as one which is concerned with the holistic development of the staff it employs, including humanities librarians.

Also noteworthy is that Thomas (2011: 42), Kahn et al. (2014: 297) and Chiware and Mathe (2015: 1-4) all cite the role of the parent organisation in terms of research data management services, which is considered to be a developing area of service in academic libraries in especially research intensive universities such as the three universities used as research sites for this study. Support for research data management is an area currently being given much attention at the strategic level of these universities and others globally (hence its preponderance in the literature). While the parent organisation would concern itself with direct support (for example, funding, infrastructure for data storage, intellectual property issues) in terms of big data sets, it would also need to provide policy and guidelines for research data support for postgraduate students. Librarians supporting masters and PhD students would benefit from such guidance in terms of designing and providing research data management support to their postgraduate student users.

In summary, librarians interviewed made no distinction between the support offered by academic libraries and support offered by the parent organisation. Providing training, workshops and/or seminars; promoting continuing postgraduate education and encouraging librarians to attend national and international conferences are the most noticeable forms of support that the parent organisation offers their librarians (via the academic library). Of

interest is the mention by librarians interviewed of the parent organisation's role in offering services such as staff wellness and financial advice which demonstrates concern by the parent organisation for its librarians in terms of holistic health and well-being. The literature specifically flags research data management support, especially in the form of policy, guidelines, funding and infrastructure support, as an explicit role that the parent organisation is currently engaged with in the current digital age in which computation of research data produces datasets that need to be managed – humanities librarians supporting postgraduate students need policy and guidelines support from their parent organisations to effect their research data management services.

5.3 Conclusions and recommendations

Based on the preceding discussion organised in terms of the five critical questions guiding this study, conclusions are drawn (in Section 5.3.1) and recommendations are made (in Section 5.3.2).

5.3.1 Conclusions of the study

- Among a list of knowledge and skills, revealed by this study, which humanities librarians currently possess in order to support postgraduate students, is subject knowledge. An expert knowledge of humanities subjects, however, is not deemed necessary in order to provide support to postgraduate students. Rather, a broad working knowledge of a subject is required and this could be attained by working in that subject area. There are, however, some humanities subjects which by their very nature would require deep subject knowledge attained through formal study of such highly specialised subject areas, for example Music. Further, it would seem that a masters degree on the part of the librarian, as a demonstration of understanding of the research process, is of great benefit in providing support to postgraduate students. The most dominant skill currently possessed by librarians for supporting postgraduate students in the digital age appears to be teaching and training skills.

- Training programmes appear to be the most supported activity by academic libraries towards continuing professional development of their librarians, including humanities librarians supporting postgraduate students. At the same time peer-to-

peer learning seems to be a common and encouraged professional development practice in academic libraries. Further, formal education is a professional development activity that is supported by academic libraries through, for example, offering (via their institutions) a staff rebate on tuition fees.

- A combination of discipline-specific knowledge and skills, generic skills and personal attributes are required by humanities librarians in order to effectively support postgraduate students especially in the current digital age. Discipline-specific knowledge and skills are considered very important for effectively supporting postgraduate students in the digital age, closely followed by generic skills with personal attributes also being considered important but lagging somewhat behind the first two categories in terms of importance to the LIS workplace in academic libraries providing postgraduate support (as reflected in Figure 5.1). The most dominant discipline-specific knowledge and skills (also referred to as professional knowledge and skills) for postgraduate support include knowledge and skills in research data management; metadata; bibliometrics (including altmetrics); referencing management tools; using electronic information resources; and information finding skills. Dominant generic skills include communication skills; general ICT skills; teamwork skills; customer service skills; management and supervisory skills; and, teaching, training and coaching skills. Personal attributes useful for effective support of postgraduate students include being flexible and adaptable; willing to continue learning; self-motivated; able to display good morals and ethics; approachable; and being patient.

- A variety of tools and resources are required by humanities librarians in order to support postgraduate students. Referencing management tools such as *RefWorks*, *EndNote*, *Mendeley* and *Zotero* appear to be critical to the research work of humanities postgraduate students. Librarians' knowledge of and skills in data analysis tools such as *NVivo*, *SPSS*, *Atlas.ti*, etc. are regarded as useful for supporting humanities postgraduate students in their research. In view of the variety and availability of software applications and resources for research, it would seem that it is more realistic to have a team-based approach among librarians in their support of

postgraduate students using software tools and resources; that is, individual librarians would specialise in the use of certain software applications so that his/her services could be called on when required by a postgraduate student, thus contributing to a team effort.

- Generally, there appears to be no distinction between the support offered by academic libraries and support offered by the parent organisation. Hence, the most noticeable forms of support that the parent organisation (the university) offers its librarians (via its academic library) are: providing training, workshops and/or seminars for continuing professional development; promoting continuing formal professional education and encouraging librarians to attend national and international conferences for wider exposure. Other general staff support services such as staff wellness and financial advice, offered directly by the parent organisation, demonstrate its concern for its librarians, among other university staff, in terms of holistic health and well-being in order for them to carry out their duties. A more recent trend in South Africa is institutional research data management support in terms of policy formulation, guidelines, funding and infrastructure support in this emerging area affecting research in higher education generally and the work of librarians specifically in their support of postgraduate students and other researchers.

5.3.2 Recommendations of the study

Based on the discussion of this study's main findings as well as the conclusions drawn, this study makes the following recommendations:

- This study recommends that both continuing professional development for humanities librarians supporting postgraduate students, amongst other librarians, in academic library services as well as LIS schools in their curriculum design and development for LIS professionals entering the academic library environment, take into account a combination of discipline-specific knowledge and skills, generic skills and personal attributes for effective delivery of academic library services, including effective support of postgraduate students by humanities librarians.

- The study also recommends that academic library services consider including the possession of a masters degree (in LIS or otherwise) as a requirement when employing librarians in positions which provide support to postgraduate students in the humanities as well as in other disciplines, as possession of a masters degree demonstrates understanding of the research process.

- The study recommends a knowledge and skills framework (as presented in Figure 5.1), based on the findings of this study, which humanities librarians supporting postgraduate students may use to 'measure' (in the sense of determining the extent of) their current knowledge and skills as well as to ascertain areas for new knowledge and skills acquisition. The framework is a succinct representation of relevant knowledge and skill areas, greater details of which may be found in the contents of this study.

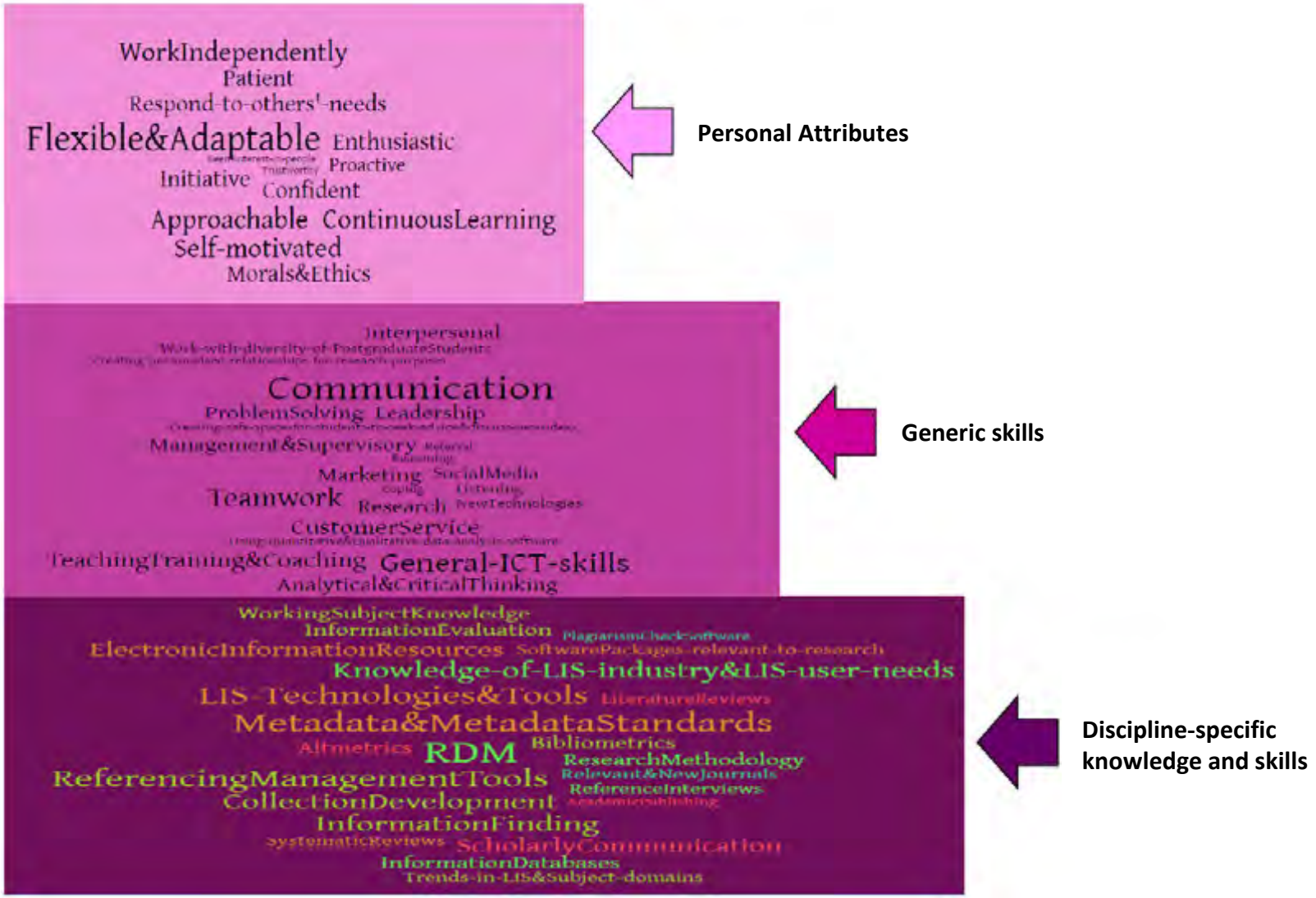
  The competency framework reflected in Figure 5.1 is regarded as a 'living document' in the sense that while in large part, many (not all) of the required knowledge and skills areas would sustain themselves over time, their position in terms of greater or lesser importance are likely to be transient because of the impact of rapidly evolving technology not only on the information landscape but also on teaching, learning and research in higher education which in turn would impact on academic library services to postgraduate students. Hence, this study recommends ongoing research in the area of knowledge and skills required for postgraduate student support such that the competency framework reflected in Figure 5.1 remains updated, relevant, usable and meaningful for an evolving digital age.

  The knowledge and skills framework reflected in Figure 5.1 is presented in the form of a 'stack' to reflect the critical base of discipline-specific knowledge and skills forming the bedrock of the 'stack' and which provides a context or basis for required generic or what is referred to as transferable skills as well as necessary personal attributes in the form of values and attitudes necessary for humanities librarians to effectively support postgraduate students in the current digital age. The narrowing of the 'stack' from the base to the top as well as the colour diffusion from dark to

light are intended to reflect the order of importance of the three competency categories as reflected in the findings of this study (that is, discipline-specific knowledge and skills being most important and personal attributes being least important). The variation in font sizes in the word clouds within each of the three competency categories is intended to reflect the emphasis received by individual competencies, as reflected in the findings of this study, within each of the three competency categories. Tag cloud analysis was used to create each of the three word clouds in the framework.

The Knowledge and skills framework for humanities librarians supporting postgraduate students (Figure 5.1) reflects the Core Competency Theory as it focuses on the categories of discipline-specific knowledge and skills, generic skills and personal attributes (collectively known as competencies) which are deemed necessary for the librarian to remain effective and efficient. These individual level core competencies contribute to organisational level core competencies which assist organisations (such as academic libraries) to remain competitive, agile, flexible and adaptable, and are key drivers in organisational efficiency. Competencies which are normally associated with a particular specialisation (within librarianship, for example) is the ability that an individual (such as a librarian) has in applying the mentioned discipline-specific knowledge and skills, generic skills and personal attributes (Figure 5.1) so that a task related to work can be performed successfully taking into consideration the academic library's goal (Tanloet and Tuamsuk, 2011: 125 and Rajan and Kumar, 2015: 147).

Figure 5.1: Knowledge and skills framework for humanities librarians supporting postgraduate students



5.4 Chapter summary and general conclusion

This chapter discussed the study's main findings, in the context of the literature reviewed and the theory informing the study, and in response to the five critical questions generated to address the study's main objective. Based on this discussion, conclusions were drawn, recommendations were made and a knowledge and skills framework for humanities librarians supporting postgraduate students was presented.

The study was informed by the Core Competency Theory which was useful in informing the generation of the critical questions guiding the study which sought to ascertain the knowledge and skills of humanities librarians supporting postgraduate students. The objective of the study was to develop a knowledge and skills framework for humanities librarians who support postgraduate students so that such librarians may 'measure' their current knowledge and skills and, identify areas for new skills acquisition. The Core Competency Theory also guided the selection of literature to be reviewed (and which proved to also be a source of relevant data) as well as the design of data collection instruments and the analysis of data collected, where possible. The study adopted a qualitative approach focusing on the constructivist paradigm and using the three research intensive universities in the Western Cape of South Africa as research sites in a multiple case study design. The qualitative approach allowed for rich collection of data and the constructivist lens used allowed the librarians and postgraduate students participating in the study as well as the researcher herself (who is a practising librarian working with postgraduate students) to contribute their views and experiences relating to the research problem under investigation. The researcher is satisfied that the study's overall methodology, including theory selection to support the study, allowed for the collection of data required to respond to the study's critical questions, which have been responded to. The researcher is also satisfied that the main objective (research problem) has been addressed via an empirically and theoretically grounded study.

While this was a qualitative study using purposive selection of both research sites and study respondents and hence not generalisable, its value and contribution are located in its originality in that such a study has not been conducted in South Africa before. Hence, from the point of view of praxis, its outcomes, especially the competency framework, would be

useful to academic libraries in South Africa, or even elsewhere, in terms of informing workplace knowledge and skills requirements in the specific area of postgraduate student support; continuing professional development of academic librarians in the current rapidly evolving technology-driven digital age and curriculum review and revision by LIS Schools in their preparation of new graduates for the digital age academic library. In terms of theory and research, the study makes a contribution to the growing body of literature on knowledge and skills requirements for the LIS workplace, especially in terms of the novel findings emanating from this study. This is an Africa based study and hence makes a contribution to research emanating from the African continent in an area of research very dominated in the literature by the global North.

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APPENDIX A: SEMI-STRUCTURED INTERVIEW SCHEDULE FOR HUMANITIES LIBRARIANS

A study of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students

My name is Glynnis Johnson and I am a master's student in the Library and Information Studies Centre at the University of Cape Town. I am carrying out a research study to investigate the knowledge and skills required by humanities librarians in supporting postgraduate students. The objective of the study is to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition. My study is being supervised by A/Prof. Jaya Raju.

You have agreed to participate in this interview by completing the Informed Consent Form and returning it to me. Your responses will be treated with utmost confidentiality. I will ensure anonymity of interview participants by naming participants A, B, C, etc. Thank you for accepting to be part of this research. You are at liberty to withdraw at any point. I would like to confirm your agreement that the interview be recorded.

Semi-structured interview schedule

1. Reflecting on your own experiences as a humanities librarian supporting postgraduate research and your familiarity with the work of other humanities librarians supporting postgraduate research: what **knowledge** (that is, **what one should know or what understanding one should have**) do you think humanities librarians supporting postgraduate students, currently possess?
2. Reflecting on your own experiences as a humanities librarian supporting postgraduate research and your familiarity with the work of other humanities librarians supporting postgraduate research: what **skills** (that is, **what one should be able to do**) do you think humanities librarians supporting postgraduate students, currently possess?
3. In view of the knowledge and skills sets you have just mentioned, how is your academic library currently supporting and assisting your professional

development in these areas? [Prompt (if necessary): could you provide some specific examples].

4. Reflecting on your own situation as a humanities librarian and with specific reference to the digital age: what necessary **knowledge** (that is, **what one should know or what understanding one should have**) do you think you require in order to effectively provide support to postgraduate students?
5. Reflecting on your own situation as a humanities librarian and with specific reference to the digital age: what necessary **skills** (that is, **what one should be able to do**) do you think you require in order to effectively provide support to postgraduate students?
6. Considering your own situation as a humanities librarian: what tools and resources do you require in order to support postgraduate students? [Prompt (if necessary), with an example of a tool/resource].
7. Reflecting on your own higher education institution: what role does your parent organisation (the university) play in preparing you for postgraduate student support?

Debriefing of participant – perhaps ask participant about his/her experience of the session. Finish off by summarising main points.

End off by saying: "I do not have any other questions to ask but is there anything else, pertaining to the subject of this interview that you would like to highlight, ask or comment on, before we finish the session?"

Thank interviewee for his/her time and contribution.

[Record date, time and duration of the interview]

APPENDIX B: FOCUS GROUP DISCUSSION INFORMATION SHEET AND CHECK LIST FOR HUMANITIES POSTGRADUATE STUDENTS

A study of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students

My name is Glynnis Johnson and I am a master's student in the Library and Information Studies Centre at the University of Cape Town. I am carrying out a research study to investigate the knowledge and skills required by humanities librarians in supporting postgraduate students. The objective of the study is to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition. My study is being supervised by A/Prof. Jaya Raju.

You have agreed to participate in this focus group discussion by completing the Informed Consent Form and returning it to me. Your comments will be treated with utmost confidentiality. I will ensure anonymity of focus group participants by naming participants A, B, C, etc. Thank you for accepting to be part of this research. You are at liberty to withdraw at any point. I would like to confirm your agreement that the interview be recorded.

I would like to remind you that there is no right or wrong response in this discussion. I am interested in knowing what each one of you thinks about the issues at hand so feel free and be frank in sharing your views regardless of whether it is opposed to the view held by most participants. Your opinions matter and it is important that you state them without fear.

Most likely, you will not like your views expressed to be repeated outside this forum. Kindly, treat the views of others the same way and maintain utmost confidentiality of the discussions. My role as facilitator of this focus group discussion is firstly, to begin by posing a question related to the research in order to start the discussion. Secondly, I will interject every now and then to guide the discussion.
Let us begin by introducing ourselves.

Focus group information sheet and check list of issues to be covered

1. At the outset explain (as the facilitator of the discussion) concepts such as postgraduate, humanities librarian, knowledge, skills and digital age so that all participants have a similar understanding of concepts that are key to this research.
2. Do you believe librarians have a role to play in supporting you in your research?
3. What **knowledge** [repeat what you mean by knowledge] do you think a humanities librarian should possess in order to effectively support you, as a masters/PhD [select depending on which group this is] student, particularly in the current digital age?
4. What **skills** [repeat what you mean by skills] do you think a humanities librarian should possess in order to effectively support you, as a masters/PhD [select depending on which group this is] student, particularly in the current digital age?
5. Reflecting on your own situation as a masters/PhD [select depending on which group this is] student: what tools and resources, do you think, would be required by a humanities librarian in order to support you, the postgraduate student? [provide an example of such a tool/resource so that the students get an idea as to what you are referring to].

Debriefing of participants – perhaps ask participants about their experiences of the session. Finish off by summarising main points.

End off by saying: "Is there anything else, pertaining to the subject of this discussion that you would like to highlight, ask or comment on, before we finish the session?"

Thank participants for their time and contribution.

[Record date, time and duration of the focus group discussion]

APPENDIX C: INFORMED CONSENT FORM FOR HUMANITIES LIBRARIAN PARTICIPATION IN INTERVIEW SESSION

A study of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students

Description of the research and participation:

My name is Glynnis Johnson and I am a master's student in the Library and Information Studies Centre at the University of Cape Town. I am carrying out a research study to investigate the knowledge and skills required by humanities librarians in supporting postgraduate students. The objective of the study is to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition. My study is being supervised by A/Prof. Jaya Raju.

Your participation will involve responding to questions relating to the above mentioned study. This study has received ethical clearance from both the University of Cape Town and from your institution.

Potential benefits:

There are no known benefits to you that would result from your participation in this research; however, this research may assist us to better understand the knowledge and skills required by humanities librarian in effectively supporting postgraduate students in the current digital age.

Protection of confidentiality:

We will do everything we can to protect your privacy. Your identity will not be revealed in any publication resulting from this study. Your responses will be treated with utmost confidentiality. I will ensure anonymity of interview participants by naming participants A, B, C, etc.

Voluntary participation:

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalised in any way should you decide not to participate or to withdraw from this study. It is only with your permission that the interview will be audio recorded.

Contact information:

If you have any questions or concerns about this study or if any problems arise, please contact:

Glynnis Johnson (student)
lwrgly002@myuct.ac.za
076 320 2613

A/Prof Jaya Raju (supervisor)
jaya.raju@uct.ac.za
021 650 3091

Informed Consent:

Please Initial Box

1. I confirm that I have read and understand the context of this study and that I have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason. ☐
3. I agree to participate in the above study. ☐
4. I agree to the interview being audio recorded. ☐

Name of Participant	Date	Signature
Name of Researcher	Date	Signature

APPENDIX D: INFORMED CONSENT FORM FOR POSTGRADUATE STUDENT PARTICIPATION IN FOCUS GROUP DISCUSSION

A study of the knowledge and skills requirements for the humanities librarian in supporting postgraduate students

Description of the research and participation:

My name is Glynnis Johnson and I am a master's student in the Library and Information Studies Centre at the University of Cape Town. I am carrying out a research study to investigate the knowledge and skills required by humanities librarians in supporting postgraduate students. The objective of the study is to develop a knowledge and skills framework for humanities librarians supporting postgraduate students against which such librarians may 'measure' their current knowledge and skills; as well as ascertain areas for new skills acquisition. My study is being supervised by A/Prof. Jaya Raju.

Your participation will involve responding to questions relating to the above mentioned study. This study has received ethical clearance from both the University of Cape Town and from your institution.

Potential benefits:

There are no known benefits to you that would result from your participation in this research; however, this research may assist us to better understand the knowledge and skills required by humanities librarian in effectively supporting postgraduate students in the current digital age.

Protection of confidentiality:

We will do everything we can to protect your privacy. Your identity will not be revealed in any publication resulting from this study. Your responses will be treated with utmost confidentiality. I will ensure anonymity of interview participants by naming participants A, B, C, etc.

Voluntary participation:

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalised in any way should you decide not to participate or to withdraw from this study. It is only with your permission that the interview will be audio recorded.

Contact information:

If you have any questions or concerns about this study or if any problems arise, please contact:

Glynnis Johnson (student)
lwrgly002@myuct.ac.za
076 320 2613

A/Prof Jaya Raju (supervisor)
jaya.raju@uct.ac.za
021 650 3091

Informed Consent: **Please Initial Box**

1. I confirm that I have read and understand the context of this study and that I have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason. ☐
3. I agree to participate in the above study. ☐
4. I agree to the interview being audio recorded. ☐

Name of Participant	Date	Signature
Name of Researcher	Date	Signature